DOI: 10.52131/pjhss.2026.v14i1.3173

Pakistan Journal of Humanities and Social Sciences

Volume 14, Number 01, 2026, Pages 299-310
Journal Homepage:
https://journals.internationalrasd.org/index.php/pjhss

Exploring Mental Health Issues among Cardiologists in Public-Sector Cardiac Hospitals: A Reflexive Thematic Study from Southern Punjab, Pakistan

Muhammad Amin [1], Muhammad Saleem [2]

[1] Department of Applied Psychology, The Islamia University of Bahawalpur, Pakistan.
Email: aminmic37@gmail.com
[2] Chairman, Department of Applied Psychology, The Islamia University of Bahawalpur, Pakistan.
Email: muhammad.saleem@iub.edu.pk

ARTICLE INFO

Article History:
Received: January 08, 2026
Revised: March 25, 2026
Accepted: March 26, 2026
Available Online: March 27, 2026

Keywords:
Cardiologists
Physician Mental Health
Qualitative Study
Occupational Stress
Burnout
Sleep Deprivation
Marital Strain
Pakistan
Reflexive Thematic Analysis

Funding:
This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

ABSTRACT

This qualitative research focused on how cardiologists employed in Southern Punjab, Pakistan, public sector cardiac hospitals perceive and encounter the mental health implications stemming from work and personal life pressures. As many as ten male cardiologists between 45 - 59 years of age, participated in semi-structured interviews. Data from the interviews was examined using reflexive thematic analysis. Nine interrelated themes emerged. These themes include, among others, chronic sleep deficit with suboptimal recovery, occupational overload with systemic strain, the emotional and psychological burden of occupational stress and health anxiety, and coping constraints with stigma and spirituality. The cardiologists who participated in this study did not equate mental health to the presence or absence of a mental health condition. The construction of mental health among study participants encompassed the totality of the lived experience. Mental health was expressed in the constellation of physical health, emotional regulation, family and social inclusion, occupational and financial fulfillment, and culturally appropriate coping. The findings suggest occupational overload aggravates chronic sleep deprivation, irritability, emotional and social withdrawal, intimacy and spousal support deficits, and reluctance to seek assistance. Based on the findings of this study, a range of culturally appropriate psychological and coping supports in the workplace, as well as integrated statutory safety and health supports, are recommended for cardiologists in Pakistan.

Corresponding Author's Email: aminmic37@gmail.com

1. Introduction

The demanding nature of working as a physician comes with the expectation of a certain level of emotional and psychological toughness. This is more applicable for certain hospital specialties with greater technical demands.

The expectation is that refusals to bend in the face of immense challenges (both emotional and psychological) is part of a physician's identity. This expectation can be detrimental. The pressure to be resilient and strong often conceals the psychological impacts of the work. It is well-documented that physicians face a myriad of challenges (e.g., sleep disruption, burnout, depression and anxiety, suicidal ideation, poor work-life balance, and stigma associated with seeking help) all of which make the challenges of practicing medicine unsustainable (Petrie et al., 2019; Rotenstein et al., 2018; West, Dyrbye, & Shanafelt, 2018; WHO, 2022). These challenges do not impact physicians in a vacuum. They can deteriorate the quality of the practice of medicine and have impacts on patients and the healthcare system as a whole.

It is particularly important to include cardiologists in the physician mental health study. Cardiologists work in an emotionally and psychologically demanding environment. The nature of the work can lead to the death of a patient and emotionally distressing encounters with the patient's family. There is also the demand on the cardiologist to be technically perfect at all times coupled with the psychological pressure of the job. Occupational risks of interventional cardiology are also significant and include radiation and lead apron exposure and musculoskeletal injuries from prolonged standing. A global study showed that there are significant impacts on the profession due to the unaddressed mental health issues of cardiologists (Sharma et al., 2023). This evidence shows that the mental health of cardiologists, and the unique risks of the profession, cannot be overlooked and must be studied in depth. The existing literature provides a general overview and describes occupational distress, burnout, poor sleep and obstacles to help seeking behaviour as common characteristics among physicians. However, there is limited knowledge regarding the situation of cardiologists in public sector cardiac hospitals in Southern Punjab, Pakistan. Public sector hospitals in this area are characterized by an overwhelming patient load, a large outpatient load with calls and no adequate resting facilities, an unsatisfactory work environment, and a culture that expects doctors to work even when fatigued. These conditions are worsened by private practice (after government duty), which many doctors depend on to support their families and for financial reasons.

The Pakistani context has its own pressure to provide for the family, cope with the situation, and remain modest and self-controlled while discussing fatigue and distress. In this case, distress is expressed only in sleep disturbances, irritability, fatigue, and a reluctance to seek help, rather than in the terminology of psychology. Doctor help seeking behaviours have been shown to be impacted by professional culture and fear of exposure (Cohen, Winstanley, & Greene, 2016; Kinman & Teoh, 2018). In this situation, the occupational, relational, and cultural dimensions of physician mental health must be considered to move beyond the individual clinical perspective(Chakravarti, 2020).

The present study includes areas often overlooked during formal physician-wellness consultations. The medical workforce literature has described burnout, depression, anxiety, and sleep disturbances. Less visible are the impacts of work-related stress on family life, marital and sexual relationships, social life, and the willingness to seek help. In cultures where discussing marital intimacy is taboo, reduced sexual intimacy may remain concealed even when it is recognized as a significant outcome of work-related stress and emotional disconnection and the presence of insomnia(Chakravarti & Stevenson, 2022). This study views mental health as the interface of the professional, the physical, the emotional,

DOI: 10.52131/pjhss.2026.v14i1.3173
the familial, the social, and the cultural. This article presents the qualitative exploratory element of a larger concurrent exploratory mixed-methods dissertation. Study I provided a comprehensive account of cardiologists' conceptualizations of mental health and the occupational, emotional, relational, social, and cultural burdens they experience. The results of Study I served as the basis for the development of an ACT-based psychoeducational stress management framework, which was the focus of Study II. This paper is solely concerned with Study I and seeks to answer the following question: How do cardiologists from public-sector cardiac hospitals in Southern Punjab define and experience mental health and associated issues in their professional and personal domains?

2. Method

2.1. Design and Methodological Orientation

The study adopted a qualitative exploratory design as Study I in a broader sequential exploratory mixed-methods dissertation. The emphasis was on the qualitative strand as the goal was to understand the personal meanings and the occupational and relational contexts in addition to the culturally embedded expressions of distress and the self-narratives of the cardiologists with regard to their well-being. The study did not intend to understand the psychiatric disorders and their rates. Its goal was to develop interpretative frameworks to understand how cardiologists and other professionals organize and integrate distress within the domains of their professional, family, social, intimate, and bodily domains. Reflexive thematic analysis was chosen for this study, as it provides a distinctive combination of flexibility and rigor in qualitative analysis and is well suited for meaning identification in a small and dense qualitative data set (Braun & Clarke, 2006, 2019, 2021). With this analysis, themes are not simply found in the data, but are the result of deep and sustained analysis, reflexive and critical thinking, and integration of relevant theories (Braun & Clarke, 2021). The analysis and reporting of this study were also guided by the recommendations of qualitative studies with regard to transparency in methods and reflexivity, and the connections established between data and findings (Braun & Clarke, 2024; Levitt et al., 2018; O'Brien et al., 2014; Tong, Sainsbury, & Craig, 2007).

2.2. Participants, Setting, and Recruitment

The participants were ten male cardiologists aged 45 to 59 from Southern Punjab, Pakistan. All participants were practicing cardiologists to which respondent codes R-01 to R-0 were assigned. Identifiers to ensure confidentiality were removed. The sample, though small, was rich with information and served the exploratory purposes of the study. Purposive sampling was used as this study sought participants that could provide experiential accounts of cardiology within the public sector and how this impacts mental health, family life, as well as the participants' recovery and coping. Participants had to be cardiologists that worked within the government cardiac services in Southern Punjab and had considerable exposure to outpatient and emergency services, and ward and procedural duties. Participants were approached one at a time through personal and professional means and were able to partake in the study voluntarily. The study was explained to each potential participant and the safeguards of participant confidentiality and withdrawal were highlighted. The participants were appropriate for this study as they represented an experienced group of public sector Cardiologists in Southern Punjab with the conditions of interest. This study did not concern demographic representation. This study sought participants that could provide experiential accounts of cardiology and the emotional, family, and intimate strains, as well as, occupational burdens and coping

Table 1: Participant Characteristics

Respondent	Gender	Age	Professional Identity
R-01	Male	49	Cardiologist
R-02	Male	46	Cardiologist
R-03	Male	52	Cardiologist
R-04	Male	55	Cardiologist
R-05	Male	47	Cardiologist
R-06	Male	50	Cardiologist
R-07	Male	58	Cardiologist
R-08	Male	53	Cardiologist
R-09	Male	45	Cardiologist
R-10	Male	59	Cardiologist

2.3. Sample Adequacy

This qualitative study targeted a specific professional group, and according to the criteria for sampling in qualitative research, a sample of ten participants was considered sufficient for the purposes of this study based on the following considerations. First, participants generated rich and detailed interview data. Second, the data generated established thematic consistencies across participants, while still allowing for individual form. The sample was assessed based on qualitative criteria of sample adequacy (i.e., richness and depth of the data generated, relevance to and addressing of the research questions and overall coherence of the themes with regard to qualitative research). As this study was focused on analytic depth and this was a sensitive research topic, the chosen sample size was appropriate to the reflexive thematic analysis.

2.4. Data Collection and Interview Procedure

Data were collected using semi-structured interviews. The interviews used prompts to help elicit participants' definitions and descriptions of mental health, sleep, work-related stress, family and marital relationships, emotional and patient-related burdens, social life, work-related stressors, coping and other/alternative resources, spirituality, stigma, and seeking help. The semi-structured nature of the interviews allowed for consistent data collection, while allowing participants to speak freely about the sensitive and even unexpected issues/concerns that arose during the interviews. Interviews were conducted one at a time with each participant after a description of the purpose of the study and after giving consent. Each interview was 40 to 60 minutes long. The primary languages of the interviews were Urdu and English, and were recorded in the professional code used by the participants. Interviews were recorded and transcription was done by professional transcriptionists. The transcripts were reviewed and analyzed for accuracy and comprehensibility in comparison to the audio records. Extra care was taken to ensure that marital issues were treated with caution. Topics related to marital strain and reduced sexual intimacy were only approached after rapport was created, and were only included in a broader discussion related to the stress and fatigue of work and the impact of family involvement. Participants were informed of their right to refuse to answer any question and to take breaks during the interview or withdraw their participation at any time. No participants were forced to answer questions related to personal issues and no diagnostic terminologies were used. These were necessary precautions in case the discussed issues were sensitive and, considering the participants' profession, could create discomfort to the participants.

3. Data Analysis

Data was analyzed using reflexive thematic analysis. The analysis involved multiple readings of the interviews, note writing, coding, checking the data for major and minor themes, and building narratives supported by the data. Coding was kept as close to the actual language as possible, while other meanings and cross-domain relationships were considered as well. Analysis was non-linear. The initial coding of the data showed repeated mentions of the following issues: being unable to sleep, heavy work, being away from family, being

irritable, anxious from exposure to radiation, being socially absent, being less intimate, and being unable to seek help. The aim of the analysis was to connect the issues. It was understood that the large and complex nature of the work introduced many other pressures and sleep deprivation and isolation and social and psychological distress were to be viewed as related but separate issues. To differentiate the themes, sleep deprivation was understood to be chronic and related to recovery, while the quality and quantity of sleep, interruptions, and thoughts during rests was understood to be related to the availability of rest facilities. Occupational overload was understood to be related to the patient work, long duty hours, being continuously commanded, and privatization. Psychological distress was understood to be related to anger and fear of making a mistake and the distress of losing a patient and being constantly mentally active, while being socially isolated was to be viewed as being related to the lack of community participation.

3.1. Researcher Reflexivity and Positionality

The research team relied on applied psychology in their study, specifically on physician well-being and the occupational stress and intervention gaps that incorporate cultural considerations. This focus helped them be sensitive to emotional states, coping, stigma, and the relational burdens of support and the structured support of psychology. They also understood that the psychology of these issues would tend to be stigma and coping-focused because of the toll imposed by the institutional burden of inadequate resources, unsafe working environments, and a toxic working culture. This concern reflects the greater qualitative commitment on the necessity to clarify the position of the researcher as interpreter (Ponterotto, 2005). Reflexivity was exercised in coding and the formation of themes by considering the balance of silence in coping at the individual, institutional, and cultural levels. It was also noted that through their applied psychology lens, the team could be illuminating the emotional and relational aspects of the issues while perhaps neglecting the administrative or structural burdens. For this reason, the analysis was based on an individual as well as a system-level interpretation. Findings that were sensitive and that pertained to the impact of occupational stress and emotional disconnection on sexual intimacy and marriage relations were interpreted with caution and not as personal failures. Rather, these findings were interpreted as relational and psychosomatic effects of occupational stress and emotional disconnection.

3.2. Trustworthiness and Ethical Safeguards

Reliability was achieved through in-depth interaction with the data, evaluative reiteration, use of the data, and assessment of the consistency of themes across individual accounts. The clarity of reasoning behind the allocation of codes, the construction of candidate themes, and the finalization of themes all contributed to the description of the process. The reflexive recognition of the researcher's position (especially in relation to the interpretation of sexual intimacy, spirituality, stigma in professional domains, and family responsibility) all contributed to the confirmability of the study. The description of public-sector cardiology services in Southern Punjab aided the evaluation of the research findings. Analytic credibility was enhanced after the review of candidate themes and theme delineation with the research team. This ensured the elimination of unnecessary theme overlaps and promoted the interpretation of findings involving the crossing of cultural boundaries. An analytic account was maintained to record the rationale behind the interpretation of occupational overload as the primary organizing constraint, as opposed to many unrelated job stressors. Ethical considerations included informed consent, voluntary participation, the use of respondent codes, confidentiality, the avoidance of diagnostic statements, and the appropriate treatment of sensitive family related issues.

4. Findings

The qualitative analysis produced nine core themes. These themes should be considered as related and not as independent. Throughout the data, occupational overload

served as a primary pressure that exacerbated poor sleep, emotional and physical exhaustion, disconnection from family, strain in intimacy, social isolation, irritability, health anxiety, and impeded help-seeking. Each of the themes was analytically separated according to the focus of recovery, pressure at work, emotional burden, family, intimacy, social participation, safety at work, and coping.

Table 2: **Summary of Themes and Analytical Focus**

Theme	Name of Theme	Analytical Focus
1	Multidimensional understanding of mental health	Mental health was described as physical, psychological, social, financial, occupational, emotional, and relational balance.
2	Chronic sleep deprivation and poor recovery	Short sleep, fragmented sleep, emergency interruptions, poor rest facilities, and rumination after difficult cases reduced recovery.
3	Occupational overload and systemic pressure	High patient load, long duty hours, private practice, manpower shortage, and continuous responsibility produced burnout-like exhaustion.
4	Family, marital, and relational strain	Financial provision existed alongside emotional unavailability, parental guilt, marital tension, and reduced closeness.
5	Reduced sexual intimacy and stress-related intimate difficulty	Fatigue, stress, poor sleep, lack of exercise, marital strain, and emotional disconnection affected intimate life without being treated as a clinical diagnosis.
6	Social isolation and psychological confinement	Friendships, social events, and community participation declined, producing a sense of psychological confinement.
7	Psychological distress, irritability, and emotional burden	Irritability, aggression, fear of error, patient-loss distress, and persistent mental activation were common emotional responses.
8	Occupational hazards and health anxiety	Radiation exposure, heavy lead aprons, spinal strain, and inadequate safety monitoring generated health anxiety.
9	Coping limitations, spirituality, stigma, and restricted help-seeking	Spiritual practices offered peace, but formal help-seeking was limited by time, stigma, and professional culture.

Theme 1: Multidimensional Understanding of Mental Health

Participants described mental health beyond a lack of depression, anxiety, or mental illness. Their descriptions depicted an understanding of mental health that included the physical, social, economic, familial, and occupational dimensions. This expansive definition shows that cardiologists perceived mental health as an all-encompassing condition and not a clinical one

"Mental health includes physical well-being, psychological stability, social balance, financial stability, and the ability to work properly" (R-01). R-04, also, described mental health stating, "It is not just the absence of depression or anxiety. A person should be emotionally stable, resilient, and functional in professional and family life.

Participants described well-being in functional, relational, and situational terms. Financial stability did not appear to be a concern. It was included in the family responsibility, employment within the government or private practice, and social obligations. From this perspective, mental health was related to the ability to work, provide, rest, relate, and maintain emotional stability in the face of social pressures

Theme 2: Chronic Sleep Deprivation and Poor Recovery

One of the most persistent and critical findings was the loss of sleep. This finding should be understood in terms of unfulfilled recovery and insufficient and degraded rest, as

opposed to the loss of sleep related to the participant's work burden. Participants reported insufficient and degraded rest, leading to the loss of sleep, along with many interruptions, emergency calls, and poor rest accommodations. Not only was sleep severely limited, but it was also stressfully disrupted due to the demands of the profession, anticipatory anxiety, and the mental review of challenging cases. *"Good sleep occurs once in a week. Even on the weekends, good sleep is a rarity if we are on call. During duty hours, sleep is next to impossible" (R-01). R-02 was of the same mind when they offered, "I sleep four to five hours most of the time. Just lying down is not a solution as the mind stays awake." R-04 observed, "After a tough case, the mind is busy with the case and so sleep is disturbed."* The results indicated that there are sleep issues at both the structural and the psychological level. At the structural level there are prolonged duty hours, emergency calls, and poor rest accommodations. At the psychological level there is rumination, anxiety over possible mistakes, and difficulty in not being responsible for the clinical work. This is best understood in the context of sleep loss which was repeatedly associated with increased irritability, physical fatigue, and emotional exhaustion with detachment from family.

Theme 3: Occupational Overload, Burnout-Like Exhaustion, and Systemic Pressur

As the primary ordering condition of the dataset, occupational overload is distinct from sleep deprivation and psychological distress because of the focus on the specific contextual and workload pressures at the institutional level. Participants experienced burnout-like heavy exhaustion and a decreased ability to recover due to the increased patient workload, lengthy duty hours, constant on-call responsibility, low staffing, and private practice after formal duty hours. R-01 described*, "In OPD the patient load is very high. There is pressure from morning till the end of duty." After duty hours, how could you be happy after a 14-16 hour day?* This theme should not be associated with a personal failing. There is distress on the individual level but it is produced within an institutional and economic matrix. The combination of a public sector job, inadequate staffing, family financial obligations, and private practice created an environment of work-related exhaustion and inadequate recovery that promoted a high level of distress.

Theme 4: Family, Marital, and Relational Strain

Occupational overload had a tremendous impact on marriage, family, and social life. Participants described a struggle between being a bread winner and being emotionally available. They found it possible to meet the family's material needs, but found it difficult to be psychologically available at home. R-01 also described the pressure of being constantly overloaded with work. *He stated, "We support family financially, but emotional connection becomes weak because there is no time." R-04 stated, "When I return home, I am physically present but mentally tired. Sometimes the child is talking and I realize I am not listening properly."* This pressure from work affects not only the Cardiologist, but the family system as well. Cardiologists, because of work pressure, become emotionally disconnected from their families. This pressure from work makes the Cardiologist feel mentally guilty, and because culturally in Pakistan family work and fulfillment of family responsibilities is of critical importance, work pressure makes the family system mentally and emotionally disconnected.

Theme 5: Reduced Sexual Intimacy and Stress-Related Intimate Difficulty

A novel and nuanced finding concerned reduced sexual intimacy and stress-related sexual difficulties. Fatigue, stress, and poor sleep were experienced by 60% of cardiologists as having a negative impact on their sexual intimacy. Considerable caution was exercised in reporting this finding, as the study did not attempt to explore the issue of sexual dysfunction or clinical sexual performance. The respondents reported that intimacy was only one aspect of the relational sphere that became critically strained due to chronic occupational stress. R-02 noted that *"poor lifestyle and stress affect sexual intimacy and satisfaction." R-04 connected the issue to the emotional and physical exhaustion: "intimacy decreases when there is fatigue and emotional distance." Another respondent noted that, "my busy patient*

schedule makes me dull and less sexually active" (R-05). The psychosomatic relational stress of occupational overload was the framing put on this finding, rather than the formal clinical diagnosis. This finding is significant, as research on the mental health of physicians tends to focus on stress, burnout, and depression, with anxiety and sleep disturbances being more frequently reported, while the relational impact on intimacy is less frequently reported. Within the Pakistani cultural framework, the expression of sexual and marital distress is more difficult, thus the presentation of this distress by multiple participants is suggestive of a hidden relational burden.

Theme 6: Social Isolation and Psychological Confinement

Participants reported experiences like diminishing friendships, difficulties in going to social gatherings, and emotional disconnect. This doesn't fall under psychological distress. This focuses on the absence of social participation and the informal recovery spaces. Social life was not devalued by cardiologists; it was rendered inaccessible by time constraints, exhaustion, and job-related duties. *"I have no close friends in the city because friendship requires time." Time was one of the constraints referred to by R-01. R-02 said "Sometimes I feel mentally jailed." This statement described the weight of the subjective psychological distress that was caused by the loss of social life, even in the presence of professional success and social esteem.* The sense of "mental jail" caused psychological distress in the domestically collectivist social structure where gatherings and social participation are dominant. Recurrent absence from social and family gatherings leads to more guilt and isolation. The natural recovery process gets disrupted and the fatigue from work takes over.

Theme 7: Psychological Distress, Irritability, and Emotional Burden

Participants noted the following symptoms: irritability, aggression, fear of error, emotional exhaustion, and distress from loss of patients. This theme differs from workload because it deals with the emotional and cognitive ramifications from the combination of pressure, medical procedures, and loss from the clinical setting. Reactions to the loss of patients were considered the norm of medical practice, but were clearly the result of medical overload and the lack of recovery time. R-03 noted, *"Almost every doctor at this level becomes irritable and aggressive when overburdened." R-04 spoke about the loss of a patient during a medical procedure and noted, "The distress remains for days, even when we know complications can happen."* From these results, it appears loss of a patient from a medical procedure and fear of making an error causes cardiologists to be reactive at work and at home. The need for debriefing and peer support may be appropriate for the cardiology departments.

Theme 8: Occupational Hazards and Health Anxiety

Interventional cardiologists have multiple occupational hazards distinct to their profession. Participants noted prolonged exposure to safety issues related to radiation, heavy lead aprons, and the standing posture required, as well as spinal stress and anxiety about chronic and cumulative health damage from long-term exposure to these risks. R-02 stated*, "In angiography there is radiation. Safety measures are not always sufficient, and lead aprons are heavy. Radiation is cumulative."*While anxiety regarding radiation and injury is mainly biomedically focused, the absence of safety compliance and the institutional oversight of safety supports the mental burden. Occupational safety reform and mental health supports should be integrated.

Theme 9: Coping Limitations, Spirituality, Stigma, and Restricted Help-Seeking

Participants indicated the use of spirituality, dietary control, a little bit of exercise, suppression, and endurance as coping methods. Peace and balance were frequently named benefits of spiritual practice. Participants mentioned the presence of stigma and the lack of time and the stigma as barriers to seeking professional help. R-01 mentioned the benefits of religious practice as *"Mosque prayers, Jummah, and religious lectures give mental peace." R-*

04 said, "I have not seriously considered professional help. There is time limitation and also stigma." From this data, we recommend that physician-wellness support be culturally and professionally appropriate. Stress management, psychological flexibility, and professional well-being may be more appropriate than the stigma of psychiatry. We recommend that spiritual coping not be dismissed, but rather be integrated with psychologically informed and scientifically proven support.

5. Discussion

These findings demonstrate that the mental health of cardiologists is relational, occupational, and culturally contextual. Participants articulated the mental health continuum as a state of equilibrium of the physical body, mind, family, finances, work, and social life. Mental health, as articulated in this study, resonates with the ability to manage life's challenges and sustain an internal state of equilibrium and social functioning, as opposed to the absence of illness (Galderisi et al., 2015; WHO, 2022). This study explored these dimensions in the context of cardiology in the public sector of Pakistan, where the coexistence of professional duties, resource constraints, family obligations, and a limited opportunity to seek help, define one's professional standing. The study identified occupational overload as the primary challenge, from which a range of associated challenges manifested. Strain from a high patient load, long duty hours, a private practice, emergency duties, and a chronic, unremitting shortage of staff caused an endless state of fatigue and irritability, emotional strain and withdrawal, and a diminished social and intimate functioning. This is congruent with the theory of occupational burnout, which postulates that chronic stress from work is the primary cause of burnout and the sustained ill state of a physician (Maslach & Jackson, 1981; Rotenstein et al., 2018; West, Dyrbye, & Shanafelt, 2018).

The sleep findings align with the evidence presented in the literature on the effects of disrupted sleep on the body and mind, including the effects on health, emotional stability, cognition, and ability to function on a daily basis (Medic, Wille, & Hemels, 2017). Sleep was not a trivial issue in this study. Sleep was affected by emergency calls, limited opportunities to rest, ongoing duties, and rumination about tough cases. This provides further justification for expanding physician-wellness program initiatives beyond just encouraging sleep. These programs should incorporate modifications to duty rosters and enhancements to rest and recovery provisions. The finding of diminished sexual intimacy is critical and must be approached carefully. It must neither be sensationalized nor moralized, nor must it be used to justify a diagnosis. It speaks to the stress of the occupation and how it affects the body, the mood, and the closeness of the relationship and the marriage. Given how challenging it is to express intimate issues, the fact that participants noted diminished intimacy means that occupational stress has the potential to cause issues that are not normally captured in the physician-wellness surveys. This builds on the current physician mental-health literature to suggest that occupational stress has the potential to reach the relational domains of a marriage, along with the more traditional areas of sleep, mood, and burnout.

The cardiology-centered study on occupational hazards shows how mental health intersects with workplace safety. Factors such as exposure to radiation, wearing heavy lead aprons, spinal compression, and poor monitoring create a safe and a psychologically harmful work environment. In addressing the mental health of physicians, psychological interventions should not place the burden on the individual to be more resilient. Psychological support should be complemented with changes to staffing, rest, safety, and monitoring facilities, as well as the

adjustment of the work schedule and safety interventions. Additionally, the study scopes out the mental health of cardiologists beyond a descriptive account of stressors by utilizing reflexive thematic analysis and reporting embodied, relational, socially produced, occupationally hazardous, and culturally mediated stress. Lastly, the study adds to the existing body of work in three main ways. Firstly, it documents the mental health of physicians in a previously underrepresented area of public cardiology in Southern Punjab, Pakistan. Secondly, the study documents the relational and intimate effects of occupational overload that are rarely documented in conventional burnout studies. Thirdly, the study shows the barriers to seeking help that senior male physicians experience, as a result of the intersections of professional culture, time constraints, stigma, self-control, and coping, which are culturally deemed acceptable.

5.1. Implications

This study has Clinical, Institutional, and Policy implications. Regarding the clinical aspect, cardiologists should have access to Psychological support. Ideally, this would be framed as concern for the stress, Psychological, and Professional aspects of the support offered to physicians. Potentially supportive services would include brief counseling, coping interventions for the disturbance and interruption of sleep, management of ruminative thoughts and strategies for emotional regulation, engagement of the family, offering the support, and referral to more intensive and distressing services. The support's confidentiality should be explicit and promoted, since stigma and fear of reputational threat and loss may impede the help-seeking behavior.

The offered services and strategies would be more humane. Public-sector cardiac hospitals should strive for humane design and better support for the practicing physicians. The support should include facilities and duty design that provide protected and planned rest, as well as debriefing sessions and peer-support consultation. The provision of safety and protective interventions should be extended to support of the mental health of engaged staff. This support would include the provision of protective and safety equipment and the support of staff's health with the assurance of safety. These interventions would support the physician's mental and physical health. Interventions and services to support the mental health of physicians should be integrated within the quality and safety of the health care services and supportive policies. Sustainable improvements can be achieved with support at the individual level, complemented with systemic and cultural changes. Support services should integrate the professional, family, and spiritual domains, and also address the culture of silence that prevents help-seeking.

5.2. Limitations and Future Research

This study only included ten male cardiologists aged between 45 and 59 from government cardiac hospitals in Southern Punjab. The sample was all-male and all-senior which limits transferability because younger cardiologists, female cardiologists, trainees, and early career doctors may experience workload, stigma, family obligations, and barriers to seeking help in diverse ways. Therefore, the findings can only be applied carefully to other contexts and occupational groups. The study was based on self-reported interviews. Since many issues were culturally sensitive, and in particular, the issues of strain in the marital relationship and reduction in sexual intimacy, some participants may have reported their experiences in a more favorable light, or may have omitted information. In addition, the study was based on interviews, so there were no observations, no reliable measures, no spouses' views, and no records of

institutional workload. These are all limitations of the exploratory nature of the study, but should be taken into account for the interpretation of the results. For women cardiologists, early career cardiologists, residents, trainees, private sector cardiologists and other fields related to cardiology, this could be valuable research. Mixed methods studies may use interviews and incorporated reliable measures to evaluate burnout, sleep, psychological distress, occupational safety, help-seeking, and relationship concerns. Also, how spouses and family members of physicians may be impacted by the workload and absence of the physician may be explored in future research of a similar nature with appropriate safeguards.

6. Conclusion

Various occupational, relational, physical, emotional, and cultural factors influence cardiologists' mental health at public-sector cardiac hospitals. There is an imbalance of some factors such as occupational overload and insufficient recovery that exacerbates the distress experienced by cardiologists. The impact is prevalent at and beyond the workplace affecting family, social life, intimate relationships and the seeking of professional help. Recording the experiences of cardiologists is the purpose of this study in order to develop interventions that are contextually relevant to cardiologists, such as psychological flexibility, stress management, family-oriented work values, and professional wellbeing. From the findings of this study, it is evident that in order to achieve any sustainable improvement in the mental wellbeing of cardiologists, the individual coping strategies interventions must be complemented by some organizational reforms.

References

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77-101. https://doi.org/10.1191/1478088706qp063oa

Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, *11*(4), 589-597. https://doi.org/10.1080/2159676X.2019.1628806

Braun, V., & Clarke, V. (2021). One size fits all? What counts as quality practice in (reflexive) thematic analysis? *Qualitative Research in Psychology*, *18*(3), 328-352. https://doi.org/10.1080/14780887.2020.1769238

Braun, V., & Clarke, V. (2024). Supporting best practice in reflexive thematic analysis reporting in *Palliative Medicine* : A review of published research and introduction to the *Reflexive Thematic Analysis Reporting Guidelines* (RTARG). *Palliative Medicine*, *38*(6), 608-616. https://doi.org/10.1177/02692163241234800

Chakravarti, S. (2020). Managing Mental Health of Students through Kindness during COVID 19 (The Impact (s) on Students and Families of Pandemic-Related School Closures). *International Journal of Management (IJM)*, *11*(11), 2627-2635. https://doi.org/10.34218/IJM.11.11.2020.247

Chakravarti, S., & Stevenson, R. R. (2022). Experiences of Educators in Imparting Digital Education and 21st Century Skills to Modern Students. In *Research Anthology on Remote Teaching and Learning and the Future of Online Education* (pp. 1721-1736). IGI Global Scientific Publishing. https://doi.org/10.4018/978-1-6684-7540-9.ch086

Cohen, D., Winstanley, S. J., & Greene, G. (2016). Understanding doctors' attitudes towards self-disclosure of mental ill health. *Occupational Medicine*, *66*(5), 383-389. https://doi.org/10.1093/occmed/kqw024

Galderisi, S., Heinz, A., Kastrup, M., Beezhold, J., & Sartorius, N. (2015). Toward a new definition of mental health. *World Psychiatry*, *14*(2), 231-233. https://doi.org/10.1002/wps.20231

Kinman, G., & Teoh, K. (2018). What could make a difference to the mental health of UK doctors? A review of the research evidence. *OP Matters*, *1*(40), 15-17. https://doi.org/10.53841/bpsopm.2018.1.40.15

Levitt, H. M., Bamberg, M., Creswell, J. W., Frost, D. M., Josselson, R., & Suárez-Orozco, C. (2018). Journal article reporting standards for qualitative primary, qualitative meta-analytic, and mixed methods research in psychology: The APA Publications and Communications Board task force report. *American Psychologist*, *73*(1), 26-46. https://doi.org/10.1037/amp0000151

Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Organizational Behavior*, *2*(2), 99-113. https://doi.org/10.1002/job.4030020205

Medic, G., Wille, M., & Hemels, M. (2017). Short- and long-term health consequences of sleep disruption. *Nature and Science of Sleep*, *Volume 9*, 151-161. https://doi.org/10.2147/NSS.S134864

O'Brien, B. C., Harris, I. B., Beckman, T. J., Reed, D. A., & Cook, D. A. (2014). Standards for Reporting Qualitative Research: A Synthesis of Recommendations. *Academic Medicine*, *89*(9), 1245-1251. https://doi.org/10.1097/ACM.0000000000000388

Petrie, K., Crawford, J., Baker, S. T. E., Dean, K., Robinson, J., Veness, B. G., Randall, J., McGorry, P., Christensen, H., & Harvey, S. B. (2019). Interventions to reduce symptoms of common mental disorders and suicidal ideation in physicians: a systematic review and meta-analysis. *The Lancet Psychiatry*, *6*(3), 225-234. https://doi.org/10.1016/S2215-0366(18)30509-1

Ponterotto, J. G. (2005). Qualitative research in counseling psychology: A primer on research paradigms and philosophy of science. *Journal of Counseling Psychology*, *52*(2), 126-136. https://doi.org/10.1037/0022-0167.52.2.126

Rotenstein, L. S., Torre, M., Ramos, M. A., Rosales, R. C., Guille, C., Sen, S., & Mata, D. A. (2018). Prevalence of Burnout Among Physicians: A Systematic Review. *JAMA*, *320*(11), 1131. https://doi.org/10.1001/jama.2018.12777

Sharma, G., Rao, S. J., Douglas, P. S., Rzeszut, A., Itchhaporia, D., Wood, M. J., Nasir, K., Blumenthal, R. S., Poppas, A., Kuvin, J., Miller, A. P., Mehran, R., Valentine, M., Summers, R. F., & Mehta, L. S. (2023). Prevalence and Professional Impact of Mental Health Conditions Among Cardiologists. *Journal of the American College of Cardiology*, *81*(6), 574-586. https://doi.org/10.1016/j.jacc.2022.11.025

Tong, A., Sainsbury, P., & Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*, *19*(6), 349-357. https://doi.org/10.1093/intqhc/mzm042

West, C. P., Dyrbye, L. N., & Shanafelt, T. D. (2018). Physician burnout: contributors, consequences and solutions. *Journal of Internal Medicine*, *283*(6), 516-529. https://doi.org/10.1111/joim.12752

WHO, W. H. O. (2022). WHO guidelines on mental health at work. World Health Organization. https://www.who.int/publications/i/item/9789240053052