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Triple-Role Strain and the Erosion of Recovery: A Qualitative Study of Work–Study–Family Demands and Mental Health among Employed Graduate Students in Pakistan

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Abstract

Purpose

Employed graduate students combine paid work, postgraduate study and, in many societies, substantial household obligations, yet research on work–study conflict has relied mainly on undergraduate samples in Western countries. This study examines how employed graduate students in Pakistan experience the mental health consequences of this role configuration, how they interpret and cope with distress, and how cultural explanations of mental illness shape their help-seeking.

Design/methodology:

An exploratory qualitative design was used with full-time salaried employees enrolled part-time in graduate programmes at four universities in Karachi. Data came from one focus group (n = 6) and one in-depth interview (n = 1). Data were analysed with reflexive thematic analysis, using conservation of resources (COR) theory and the effort–recovery model as sensitising lenses.

Findings:

Five themes were developed: (1) triple-role accumulation and the colonisation of time; (2) recovery deficit and a loop of perseverative cognition and sleep disruption; (3) psychological, behavioural and somatic expressions of strain; (4) coping as resource replenishment; and (5) cultural interpretive frames (stigma, supernatural attribution and an intergenerational literacy gap) that delayed recognition and channelled early help-seeking through somatic medicine.

Originality:

The study builds on the existing two domain model of work–study conflict and suggests a three domain (work–study–family) model of work–study conflict and three propositions for a triple-role resource-depletion framework. These state that household duties deplete the remaining time each household member generally takes to recover, that perseverative cognitions relate overload to disruption of their sleep, and that cultural interpretive frames extend loss spirals by channeling distress into physical rather than psychological care.

Implications:

Universities and employers in comparable contexts should treat recovery time as a protected resource. They should also integrate mental health literacy with flexible scheduling and with referral pathways that

recognise somatic presentations. Because the sample is small and homogeneous, the propositions should be tested in larger and more diverse samples.

1. Introduction

Mental health problems are common among university students worldwide. In the World Health Organization World Mental Health International College Student surveys, roughly one-third of first-year students across eight countries screened positive for at least one common mental disorder (Auerbach et al., 2018). Graduate students appear to be at particular risk. Evans et al. (2018) reported markedly elevated rates of moderate-to-severe anxiety and depression in an international graduate sample. A meta-analysis of doctoral students estimated a pooled prevalence of clinically significant depressive symptoms of about one-quarter (Satinsky et al., 2021). In a representative sample of 3,659 doctoral students in Flanders, 32% were at risk of a common psychiatric disorder. The work–family interface and job demands were among the strongest organisational predictors (Levecque et al., 2017). Graduate students have also been found to be more anxious and depressed, and less engaged, than general workers (Gallea et al., 2021). The burden has not eased since the pandemic: a meta-analysis of 63 studies published between 2022 and 2025 estimated pooled prevalences of 45.1% for depression and 43.6% for anxiety among university students (Antón-Ruiz et al., 2026).

These findings describe mainly full-time doctoral researchers in high-income countries. A large and growing group of graduate students looks very different. They are coursework (e.g., MBA, MPhil, MS) students who hold full-time jobs and study part-time, often in the evenings. For them, the university is one of at least two institutions that make competing claims on time and energy. Research on working students shows that work–school conflict is associated with lower academic satisfaction and performance and with poorer health (Butler, 2007; Markel & Frone, 1998; Park & Sprung, 2013). It also shows that the balance of job demands and benefits shapes students' engagement and well-being (Creed et al., 2015; Owen et al., 2018). In a recent path analysis of Australian students, work–study conflict was among the strongest predictors of negative health outcomes, with fatigue and sleep disturbance the most common complaints (Samaratunga & Kamardeen, 2025). However, this literature has three limitations that motivate the present study.

First, it is overwhelmingly based on undergraduates in the United States and Australia and uses cross-sectional surveys. It therefore offers little insight into how employed *graduate* students in the Global South experience role conflict. Second, it conceptualises the problem as a conflict between *two* domains, work and study. Family appears, if at all, as a source of support. In collectivist societies such as Pakistan, however, adult children commonly retain substantial household and caregiving obligations, and these are shaped by gendered norms (Rehman & Roomi, 2012). Family may therefore be a third domain of demand rather than only a resource. Third, the working-student literature rarely asks how students *make sense* of their distress, and that sense-making governs whether and where they seek help. In Pakistan, distress is frequently interpreted through supernatural or moral frames, and mental illness carries considerable stigma (Mirza & Jenkins, 2004; Saeed et al., 2000; Shah et al., 2019). Mental

health literacy also varies with education and urbanity (Nisar et al., 2019; Suhail, 2005). A recent qualitative study of female university students in Pakistan found that stigma, fear of reputational damage and norms of family honour kept help-seeking low despite high levels of distress (Shabbir et al., 2026). That study, however, concerned full-time students rather than students who also hold full-time jobs.

This study addresses these gaps through an exploratory qualitative inquiry with employed graduate students in Karachi, Pakistan's largest city. It is guided by three research questions:

- **RQ1.** How do employed graduate students experience the demands of combining full-time work, graduate study and household obligations, and which personal resources do they perceive these demands to consume?
- **RQ2.** Through which psychological, behavioural and somatic pathways do participants describe these demands as affecting their mental health?
- **RQ3.** How do participants cope with distress, and how do cultural interpretations of mental illness shape recognition and help-seeking?

The study makes three contributions. First, it extends work–study conflict research to a *three-domain* configuration and shows how household obligations remove the residual time that, in two-domain models, is implicitly available for recovery. Second, it combines conservation of resources (COR) theory (Hobfoll, 1989; Hobfoll et al., 2018) with the effort–recovery model (Meijman & Mulder, 1998) and perseverative cognition hypothesis (Brosschot et al., 2006). The outcome is not a list of symptoms, but a process account: role overload will result in recovery deficit, which will result in strain. Third, it introduces culturally embedded explanations of distress (Karasz, 2005; Kirmayer & Young, 1998) to the literature on working students. It shows how stigma and somatic interpretation shape *the route and timing* of help-seeking even among educated young adults. These insights are summarised in a triple-role resource-depletion framework (Fig. 1) and three propositions for future testing.

2. Theoretical background

2.1 Role accumulation and work–study conflict

Role theory offers two competing views of multiple roles. The scarcity perspective holds that total role obligations can be overdemanding and so produce role strain (Goode, 1960). The accumulation and expansionist perspectives argue that multiple roles can also generate privileges, status security and buffering, provided that the roles are of good quality and their time demands are manageable (Barnett & Hyde, 2001; Sieber, 1974). Greenhaus and Beutell's (1985) distinction between time-based, strain-based and behaviour-based inter-role conflict was later extended from the work–family interface to the work–school interface. Among adolescents and undergraduates, longer working hours and more demanding jobs predict greater work–school conflict, which in turn predicts poorer school outcomes (Butler, 2007; Markel & Frone, 1998). Work–school conflict is also associated with poorer physical and psychological

health, and resources in the work and school domains attenuate these associations (Park & Sprung, 2013). Integrative models now frame work–study conflict and facilitation within the job demands–resources tradition (Bakker & Demerouti, 2007; Demerouti et al., 2001; Owen et al., 2018).

Two features of this literature limit its transferability to employed graduate students in South Asia. Its samples are typically undergraduates working part-time to support full-time study, which is the reverse of the full-time-worker, part-time-student configuration examined here. Its two-domain framing also treats life outside work and study as a reservoir of time and support. Where household obligations are extensive and normatively enforced, that reservoir may itself be a domain of demand (Rehman & Roomi, 2012). We therefore use the term *triple-role strain* for the cumulative demands of work, study and household roles.

2.2 Conservation of resources and the effort–recovery model

COR theory proposes that people strive to obtain, retain and protect valued resources such as time, energy, social support and conditions of life. Stress arises when resources are threatened or lost, or when invested resources do not yield adequate returns (Hobfoll, 1989). Resource loss is psychologically more salient than equivalent gain. People with fewer resources are more vulnerable to further loss, which can produce *loss spirals* (Halbesleben et al., 2014; Hobfoll et al., 2018). The effort–recovery model complements COR by specifying a mechanism. Effort expended to meet demands produces short-term load reactions. These are normally reversed during recovery periods, but when recovery is insufficient they accumulate into chronic impairment (Geurts & Sonnentag, 2006; Meijman & Mulder, 1998). Recovery depends not only on time away from demands but on recovery *experiences*, particularly psychological detachment, relaxation, mastery and control (Sonnentag & Fritz, 2007). Paradoxically, those under the heaviest demands are the least likely to achieve recovery (Sonnentag, 2018).

2.3 Perseverative cognition, sleep and the embodiment of strain

The perseverative cognition hypothesis proposes that worry and rumination prolong stress-related physiological activation beyond the stressor itself, and that this links psychological stress to somatic outcomes (Brosschot et al., 2006). Sleep disturbance is a plausible conduit. Systematic evidence indicates bidirectional relationships between insomnia and both anxiety and depression (Alvaro et al., 2013). Among university students, poor sleep quality correlates moderately to strongly with anxiety and depression, and difficulty falling asleep appears to be a key component (Whitehead & Horton, 2025). Rumination also predicted the onset of first-episode major depressive disorder over one year in a cohort of 6,985 university students (Guo et al., 2026). Stress among university students is associated with poorer physical health and a range of mental health difficulties (Leppink et al., 2016). Somatic symptoms

are among the most common presentations of anxiety and depression in primary care (Kroenke, 2003), and the somatic expression of distress is shaped by culture (Kirmayer & Young, 1998). Together, these strands suggest that embodied symptoms such as breathlessness or sweating should be treated as part of the strain process rather than as incidental complaints.

2.4 Cultural interpretive frames, stigma and help-seeking

Whether strain is recognised as a mental health problem, and where help is sought, depends on explanatory models. Karasz (2005) demonstrated that South Asian immigrants were more likely to focus on situational and social explanations of depression and more likely to prefer self-management approaches while European Americans were more likely to use biomedical formulations. Stigma hinders help-seeking within populations (Clement et al., 2015; Corrigan, 2004). For young people, embarrassment and difficulty in identifying symptoms as well as preferring to be self-reliant are the top barriers (Gulliver et al., 2010). Students often perceive that seeking treatment marks them as abnormal (Vidourek & Burbage, 2019). In low-income and rural contexts, distress is often dismissed as something to "get over" or to be resolved through prayer (Crumb et al., 2019). In Pakistan, a large proportion of people who attend faith healers meet criteria for mental disorders (Saeed et al., 2000). Supernatural beliefs and stigma are associated with negative attitudes towards mental health services (Shah et al., 2019), and the recognition of depression as an illness is uneven (Nisar et al., 2019; Suhail, 2005). Help-seeking attitudes improve with depression literacy and anti-stigma interventions (Ibrahim et al., 2019; Nguyen Thai & Nguyen, 2018; Shahwan et al., 2020), including interventions in the workplace (Hanisch et al., 2016). Mental health professionals identify family, peers and the media as key sources of stigma (Hanafiah & Van Bortel, 2015). Knowledge alone is not enough, however: a systematic review found only small associations between mental health knowledge and actual help-seeking behaviour, and no consistent association with perceived stigma (Grosselli et al., 2025). Table 1 synthesises the studies most directly relevant to the present inquiry and the gaps they leave.

Table 1. Synthesis of key prior evidence and the gap addressed by this study

Study	Context and design	Key finding relevant here	Limitation / gap for this study
Markel & Frone (1998); Butler (2007)	USA; adolescents and undergraduates; survey/structural models	Job demands and hours predict work–school conflict, which predicts poorer school outcomes	Two-domain model; young part-time workers; no mental health process
Park & Sprung (2013)	USA; working college students; survey	Work–school conflict associated with poorer health; resources attenuate the association	Western undergraduates; family as resource, not demand
Creed et al. (2015); Owen et al. (2018)	Australia; working university students; survey	Job demands vs benefits shape engagement and well-being; integrated conflict–facilitation model	Quantitative; little attention to recovery or meaning-making
Levecque et al. (2017)	Belgium; 3,659 PhD students; survey	32% at risk of common psychiatric disorder; work–family interface a key predictor	Full-time doctoral researchers in a high-income country
Evans et al. (2018); Satinsky et al. (2021)	International graduate/PhD samples; survey; meta-analysis	Elevated anxiety and depression among graduate and doctoral students	Prevalence focus; employed coursework students under-represented
Suhail (2005); Nisar et al. (2019)	Pakistan (Punjab; Karachi); community surveys	Recognition of mental illness varies with education and urbanity; depression often not seen as illness	General public; not linked to role demands
Saeed et al. (2000); Shah et al. (2019)	Pakistan; faith-healer attendees; survey of beliefs	Supernatural attributions and stigma associated with avoidance of mental health services	Does not examine educated young adults or somatic help-seeking routes
Samaratunga & Kamardeen (2025)	Australia; 253 undergraduates; survey/path analysis	Work–study conflict a leading predictor of negative health outcomes; fatigue and sleep disturbance common	Undergraduates; two-domain model; no cultural dimension
Shabbir et al. (2026)	Pakistan; female university students; qualitative	Stigma, family honour and low literacy suppress help-seeking in a collectivist society	Full-time students; does not examine employment or recovery
Karasz (2005)	USA; South Asian vs European American; qualitative/vignette	Social-situational vs biomedical explanatory models of depression	Immigrant sample; not role-strain context

Source: Compiled by the authors from the cited studies.

2.5 Sensitising framework

Drawing these strands together, Figure 1 presents the sensitising framework that guided analysis and was refined abductively through it. Consistent with reflexive thematic analysis, the framework was used to sensitise interpretation rather than as a coding template to be confirmed (Braun & Clarke, 2019, 2021). Triple-role demands (A) consume personal resources (B). Resource loss produces a recovery deficit characterised by lack of detachment, perseverative cognition and sleep disruption (C), which is expressed as psychological, behavioural and somatic strain (D). Strain in turn depletes remaining resources (loss spiral). Cultural interpretive frames (E) moderate whether strain is recognised as a mental health problem and shape coping (F). Coping functions as resource replenishment. The propositions (P1–P3) are developed in Section 5.

3. Methodology

3.1 Research design and philosophical stance

The design used for this study was exploratory qualitative in an interpretivist paradigm, as the intent was to gain an understanding of how participants experience and make sense of their work–study routines, rather than estimating prevalence or testing causal effects. Choosing this method reflexively thematic analysis (Braun & Clarke, 2006; 2019; 2021) was selected as this method is theoretically flexible, allows for both inductive and theory informed coding and recognizes the researcher subjectivity as a resource rather than a source of bias. The Consolidated Criteria for Reporting Qualitative Research (COREQ; Tong et al., 2007) are used to report the study. The completed checklist, including items that the original study records do not cover, is provided as Supplementary File S1.

3.2 Setting and participants

Participants were recruited from graduate programmes at four universities in Karachi, Pakistan. Inclusion criteria were (a) current enrolment in a graduate programme, (b) concurrent full-time salaried employment and (c) age between 22 and 32 years. The focus group participants were aged 26–32 years. Participants were selected purposively and invited from graduate programmes at the four universities. Seven participants took part: six in one focus group and one, a different person, in an in-depth interview. Their characteristics are shown in Table 2. All participants identified as middle or upper-middle class and were bilingual in English and Urdu.

Table 2
Participant characteristics

Characteristic	Focus group (n = 6)	In-depth interview (n = 1)
Age (years)	26–32 (eligibility 22–32)	Within the eligibility range of 22–32
Education level	Graduate programme	Graduate programme
Gender	Female: 2 (33.3%); male: 4 (66.7%)	Female
Study/work status	Part-time student; full-time employee	Part-time student; full-time employee
Source of income	Salaried employee (all)	Salaried employee
Financial dependency	Self-sufficient	Partially dependent on family
Role in household decisions	Medium to high	No decision-making role
Marital status	Married: 2 (33.3%); unmarried: 4 (66.7%)	Unmarried
Languages spoken	English, Urdu	English, Urdu
Universities represented	Four universities in Karachi	A university in Karachi

Note: Percentages are of focus group participants. One focus group participant was a parent of a young child. Values are reproduced from the original study records; rows have been re-aligned to correct a layout error in the earlier version.

3.3 Data generation

Data were generated through three sources: researcher observation, a focus group and an in-depth interview. Observation was used to document participants' lived experience of mental health problems and how these had affected their lives. The focus group was used to elicit shared understandings and to let participants respond to and build on one another's accounts, a strength of the method for exploring social norms such as stigma (Morgan, 1996). It took place first and generated the initial themes. The in-depth interview followed. It allowed more time and space for a detailed individual narrative of the onset, recognition and management of distress. The discussions covered the areas reported in the study: (a) daily routines and the demands of work, study and home; (b) perceived effects on mood, sleep, health and relationships; (c) coping and help-seeking; (d) how family and society view mental health problems; and (e) perceived needs for awareness. The analysed data set comprised the observation notes, the record of the focus group discussion and the interview record. Participants were bilingual in English and Urdu, and extracts are presented in English as recorded. Participants' references to the COVID-19 pandemic indicate that data were collected during the pandemic period.

3.4 Data analysis

Analysis followed the six phases of reflexive thematic analysis (Braun & Clarke, 2006, 2021; see also Byrne, 2022): (1) familiarisation through repeated reading of the observation notes and discussion and interview records; (2) systematic generation of semantic and latent codes across the data set; (3) clustering of codes into candidate themes; (4) review of candidate themes against coded extracts and the full data set; (5) definition and naming of themes; and (6) writing up. Coding was primarily inductive. In phases 3–5, the sensitising concepts in Fig. 1 were used abductively to interpret relationships among themes, for example whether reported insomnia was linked to overthinking or to time scarcity. The lead researcher first developed concepts and codes from the raw data, organised them into categories and themes, and then examined the links and relationships among them. For the present article, the coded extracts were re-analysed through phases 3–6 to refine the themes against the sensitising framework. Table 3 illustrates the progression from codes to themes.

Table 3
Illustrative coding framework: from codes to themes

Illustrative initial codes	Sub-theme	Theme	Sensitising concept
Waking at 5–6 a.m.; job, then university, then cooking; assignments at night; three things at a time	Tough and tiring routine; overburdening (incl. self-imposed goals)	T1. Triple-role accumulation and the colonisation of time	Role accumulation; time-based conflict; COR resource investment
2–3 hours with family; fewer friends; skipping gatherings; no time for self	Erosion of family, friendship and self-time	T1 (continued)	COR resource loss (social support, leisure)
Watching the ceiling at night; thinking about the future; cannot sleep; fear of losing job, family	Overthinking–insomnia loop; anticipatory fear	T2. Recovery deficit and perseverative cognition	Effort–recovery; perseverative cognition; detachment
Getting aggressive; shouting when late; sweating; eating too much; breathlessness; "full of depression"	Behavioural, somatic and affective strain	T3. Expressions of strain	Strain-based conflict; somatisation
Time with mother; taking a break; reading novels; "must not overburden"; consulting a psychologist	Replenishing, boundary-setting and professional coping	T4. Coping as resource replenishment	COR resource gain; coping (Lazarus & Folkman, 1984)
"Not a big thing"; evil eye/magic; "they call them mad"; elders; media; normalise like flu	Stigma; supernatural attribution; intergenerational gap; awareness	T5. Cultural interpretive frames	Explanatory models; stigma and help-seeking

3.5 Rigour, trustworthiness and reflexivity

Trustworthiness was addressed using Lincoln and Guba's (1985) criteria as operationalised for thematic analysis (Nowell et al., 2017). Credibility was supported by triangulating data sources (focus group,

interview and field notes) and by presenting verbatim extracts that allow readers to judge interpretations. Member checking was not part of the original design, so credibility rests on source triangulation and the transparent presentation of extracts. This is acknowledged as a limitation (Section 5.3). Dependability was supported by an audit trail of codes and theme development (Table 3). Transferability is supported by the detailed description of participants and setting (Table 2). Readers are invited to judge the relevance of findings to similar contexts rather than to treat them as statistically generalisable.

Sample adequacy was judged by *information power*, not by numerical saturation (Malterud et al., 2016). Information power is enhanced by a narrow aim, a highly specific sample (all participants were full-time employees enrolled in graduate programmes in one city), the use of established theory and the depth of the in-depth interview. It is constrained by the single focus group and the small total sample. Reflexive thematic analysis does not regard saturation as a coherent stopping criterion (Braun & Clarke, 2021; Saunders et al., 2018). Even so, empirical work suggests that meaning saturation typically requires more interviews than were conducted here (Hennink et al., 2017). Comparable exploratory qualitative studies of working master's students have used similarly small samples (e.g., nine participants in Elsya et al., 2025). We nevertheless present the findings as exploratory and theory-generating (see Section 5.4).

Reflexivity. The lead researcher shares the cultural background of the participants and has personal experience of combining work and study. This insider position facilitated rapport and the interpretation of culturally specific idioms (e.g., *evil eye*). It also carried the risk of projecting her own experiences onto the data. To manage this risk, she withheld her own opinions and perceptions in front of participants in order to obtain unbiased and deeper accounts. We acknowledge that interpretation may still carry preconceived meanings shaped by this shared context.

3.6 Ethical considerations

Participants were adult volunteers who were invited to take part and shared their experiences voluntarily after being informed of the purpose of the study. Given the sensitivity of the topic, participants were free to decide what to disclose. All accounts were anonymised, and quotations are reported without names or other identifying details. The original study report does not record an ethics committee approval reference.

4. Findings

Five themes were developed (Table 4). Quotations are reproduced verbatim except for the correction of obvious transcription errors; omissions are marked with ellipses. The study records do not link individual extracts to individual participants, so extracts are reported without participant identifiers. This also protects anonymity in a small sample.

4.1 Theme 1: Triple-role accumulation and the colonisation of time

Participants described routines in which work, study and household tasks were sequenced back-to-back, leaving almost no unallocated time. The household was not a refuge from work and study but a third shift of obligations:

"I have a very tiring routine. I wake up early in the morning around 5 or 6 a.m. I prepare breakfast for my brother and mother. Then I go to university and after university I go to academy where I teach. In evening, I come back to home and then I cook food for dinner and then start doing my university assignments and then finally I sleep."

For some, the load was intensified by additional, self-chosen goals, most notably preparation for competitive civil-service examinations and language tests. This illustrates the COR principle that people invest resources to gain future resources, such as career security, even at the cost of present depletion (Hobfoll et al., 2018):

"I think I was overburdened due to work and I am doing three totally different things together; my job, studies and competitive exam preparation."

"But obviously I did not have the idea that it will be this much tiring … So now it has become very much tiring."

The most consistent consequence was the erosion of resources that participants valued but could no longer protect: time with family, friendships and time for themselves. Time with family was reduced to "hardly 2 to 3 hours"; childhood friendship networks had narrowed to "2–3 friends"; and social gatherings were declined because of exhaustion:

"Definitely, I spend very less time with my family, hardly 2 to 3 hours and doing this has negatively impacted my family life. Because spending time with family is a great pleasure but when you are compromising with your family time that is really bad."

"I am too tired in the evening because of the whole day’s hectic routine. I feel too tired that I just want to sleep instead of going out to those parties."

"I just don’t give enough time to my own self. Yes, I guess this is the negative impact."

Some were feeling the urge to return to their previous life before the work study programme ("Sometimes, I feel like quitting everything and get back to the normal life"). This awareness did not result in a decrease in demands, which indicated that the routine was felt as compulsory, not as selected.

4.2 Theme 2: Recovery deficit and the perseverative cognition–sleep loop

The time for rest had been taken away, and the time that was left, especially at night, was wasted in concern for the future. This is a colorful example of the lack of psychological detachment (Sonnentag &

Fritz, 2007):

"I've been watching the ceiling for the whole night, thinking about my life, what will be my life, how I will achieve my goals, how I will get it to pass by. I was very confused with what was going on. I was just trying to sleep like a baby and relax."

Participants linked this "overthinking" directly to sleeplessness ("I just couldn't sleep. I was like insomnia"), consistent with the perseverative cognition hypothesis (Brosschot et al., 2006) and with the bidirectional relationship between insomnia and anxiety and depression (Alvaro et al., 2013). Rumination was also directed at the possibility of losing what had been gained. Participants feared losing their jobs, their goals and their independence. For one participant, the COVID-19 pandemic amplified these fears, consistent with reports of pandemic-related increases in anxiety (Mahmood et al., 2021; Rajkumar, 2020):

"Fear of losing my life and of course of my family members, my mother. … I feared that I'll lose my goals and my job and will again depend on my family. There were so many things in my mind."

This extract is theoretically significant. The participant fears resource loss (job, goals, financial independence), which COR theory identifies as the primary driver of stress (Hobfoll, 1989). The co-occurrence of the pandemic, however, means that the specific contribution of the work–study routine to these fears cannot be isolated.

4.3 Theme 3: Psychological, behavioural and somatic expressions of strain

Participants described strain in affective, behavioural and bodily terms. Stress was defined experientially as being "over burdened with a lot of stuff that you can't bear". Anxiety was the most widely reported experience, with anxiety attacks described as occurring "mostly at the night time when everyone is sleeping". Participants explicitly connected rises in workload to rises in depressive feelings:

"I am doing three totally different things together … my business studies are totally different, IELTS is different and of course the competitive exam is different. So, I was full of depression."

Behaviourally, depleted self-regulatory capacity showed up as irritability and anger directed at family members, as well as shouting and overeating:

"I get too much aggressive to people and when my little brother annoys me to make my mood good, I get too much aggressive."

"I went into too much stress that I just couldn't sleep … I ate too much that I put on too much of weight as well."

Irritability was voiced most prominently by female participants. Given that only three of the seven participants were women, this observation should not be read as a gender difference. It is nevertheless

consistent with the heavier household load that gendered norms place on women in Pakistan (Rehman & Roomi, 2012). Somatic expressions included sweating during episodes of anger and, most strikingly, breathlessness. One participant's account shows how strain reached clinical attention through the body rather than the mind:

"I was also having breathing problem so I thought it is because of asthma. So, I went to doctor, a pulmonologist, he told me that I don't have any respiratory problem and it is due to anxiety and depression so he gave me few medicines … which helped me in relieving my stress. I took them for two months and I felt fine."

This journey is from a physical symptom to an assumed physical illness, to a specialist referral and finally to a psychological explanation. This matches evidence that somatic symptoms are a normal symptom of anxiety and depression (Kroenke, 2003) and that distress is culturally manifested as bodily symptoms (Kirmayer & Young, 1998). It looks forward to Theme 5: the body provided a legitimate and non-stigmatising point of entry to care.

4.4 Theme 4: Coping as resource replenishment

The coping strategies participants described can be read as attempts to replenish the resources that Theme 1 showed being depleted. The most common was reconnecting with family and taking breaks. Restorative activities that had been crowded out, such as reading and going out, were also valued:

"First of all, I spend time with my mother when I feel low. I read history and other novels. So, they help a lot."

"I wanted to go out I couldn't even breathe. … My brother and mother took me out and I felt relief that time."

Some participants articulated a more structural, problem-focused strategy (Lazarus & Folkman, 1984): limiting demands to restore balance ("I think we must not over burden ourselves. There should be a limit"). Participants uniformly endorsed professional help as legitimate. Participants described consulting general physicians, a pulmonologist and, informally, a friend who was a clinical psychologist. However, several positioned professional help as appropriate only "in extreme cases", after self-management had failed. This mirrors the preference for self-reliance identified as a key barrier among young people (Gulliver et al., 2010). Participants who recognised their difficulties as mental health problems were willing to seek professional help, consistent with evidence linking depression literacy to help-seeking (Ibrahim et al., 2019; Nguyen Thai & Nguyen, 2018).

"I think there is nothing wrong if you are feeling that you need to contact a psychologist because they are doing their job because we people need them. There is nothing abnormal in this."

Coping was therefore largely relational and restorative, but it was itself constrained by the scarcity of time that produced the strain. Family time is both a casualty of the routine and its principal remedy. This

dual role illustrates why loss spirals are hard to escape (Hobfoll et al., 2018; Sonnentag, 2018).

4.5 Theme 5: Cultural interpretive frames

Participants regarded their own difficulties as genuine mental health problems. They described a wider social environment, however, in which such problems were trivialised, supernaturally explained or stigmatised:

"I don’t think that they think that this is a serious problem. Like they say that it’s normal and not a big thing."

"I think our elders, who see such people going through depression and anxiety they say that they are under some evil eye or some magic. They don’t think that it’s a disease."

"Talking about Pakistani society, people call them mad who are suffering from depression or anxiety."

These frames correspond closely to findings on supernatural attribution and stigma in Pakistan (Saeed et al., 2000; Shah et al., 2019) and on the dismissal of mental illness elsewhere (Crumb et al., 2019; Vidourek & Burbage, 2019). Participants located the frames generationally, among "our elders". They called for intergenerational awareness, a stronger role for the media and the normalisation of mental illness "just like we go to treat flu or cough or any heart disease". This intergenerational framing is consistent with evidence that mental health literacy varies with education (Nisar et al., 2019; Suhail, 2005). It also suggests that young, educated adults in Pakistan may hold more biomedical models than the family members on whom they depend for support. Participants were hesitant to disclose their difficulties for fear of being labelled "mad", even though they personally endorsed professional help. Stigma thus appeared to operate less by preventing recognition than by shaping *disclosure* and the *route* of help-seeking. The bodily route described in Theme 3 offered a socially acceptable path.

Table 4
Summary of themes, illustrative evidence and theoretical interpretation

Theme	Core meaning	Illustrative evidence	Theoretical interpretation
T1. Triple-role accumulation and the colonisation of time	Work, study and household roles fill the day; family, friends and self-time are sacrificed	"I wake up … 5 or 6 a.m. I prepare breakfast … academy … cook food … assignments"	Time-based conflict across three domains; COR resource loss
T2. Recovery deficit and the perseverative cognition–sleep loop	Residual time is consumed by worry; sleep fails; fear of losing gains	"I spent my whole nights watching the ceiling, thinking about my future"	Effort–recovery model; lack of detachment; perseverative cognition
T3. Expressions of strain	Distress appears as stress, anxiety and depressive feelings, irritability, overeating, sweating, breathlessness	"He told me that I don't have any respiratory problem and it is due to anxiety"	Strain-based conflict; somatic presentation of distress
T4. Coping as resource replenishment	Family time, breaks, reading, boundary-setting; professional help as a last resort	"I spend time with my mother when I feel low"	COR resource gain; problem- and emotion-focused coping
T5. Cultural interpretive frames	Trivialisation, evil eye/magic, "madness"; generational gap; call for awareness	"They say that they are under some evil eye or some magic"	Explanatory models; stigma shapes disclosure and help-seeking route

5. Discussion

This study explored how employed graduate students in Karachi experience the mental health consequences of combining work, study and household roles. The findings support a process account, summarised in Fig. 1, in which strain develops through resource depletion and failed recovery and in which culture shapes how strain is interpreted and addressed. We discuss the theoretical contributions as three propositions, then turn to practical implications and limitations.

5.1 Theoretical contributions

From work–study conflict to triple-role strain. Existing models of work–study conflict treat the non-work, non-study domain as a reservoir of time and support (Butler, 2007; Owen et al., 2018; Park & Sprung, 2013). Our participants instead described household responsibilities, such as cooking, caring for siblings and parents, and family expectations, as a third shift that filled the residual time in which recovery would otherwise occur. This supports the scarcity view of multiple roles (Goode, 1960) under conditions of high cumulative time demand. It also qualifies the expansionist view (Barnett & Hyde,

2001; Sieber, 1974): the benefits of multiple roles may depend on the existence of unallocated time between them. We therefore propose:

- **P1.** Among employed graduate students in contexts with strong household obligations, mental strain arises less from work–study conflict as such than from triple-role accumulation, in which household obligations eliminate the residual time that ordinarily serves recovery.

Recovery deficit as the mechanism. Prior work on working students has documented associations between conflict and health (Park & Sprung, 2013) without specifying the mechanism. Our data point to the effort–recovery pathway (Meijman & Mulder, 1998). Night-time, the only unallocated period, was occupied by future-oriented worry, which participants explicitly connected to insomnia and, through it, to anxiety and depressive feelings. This is consistent with perseverative cognition (Brosschot et al., 2006) and with the bidirectional relationship between sleep and affective symptoms (Alvaro et al., 2013). It also illustrates the recovery paradox: those most in need of recovery are least able to achieve it (Sonnentag, 2018). Recent longitudinal evidence that rumination predicts first-episode depression among university students (Guo et al., 2026), and evidence that difficulty falling asleep is central to the sleep–mental health link in students (Whitehead & Horton, 2025), make this pathway a priority for testing. We propose:

- **P2.** Triple-role overload affects mental health primarily through a recovery deficit, in which the absence of psychological detachment produces perseverative cognition and sleep disruption. These in turn amplify anxiety and depressive affect and further deplete resources (a loss spiral).

Culture shapes the route, not only the recognition, of help-seeking. The literature on mental health in Pakistan has emphasised low literacy and supernatural attribution as barriers to *recognition* (Nisar et al., 2019; Shah et al., 2019; Suhail, 2005). Our educated, urban participants recognised their own distress as mental illness and endorsed professional help. Yet they anticipated stigma from elders and wider society, and they approached professional help as a last resort. In the clearest case, distress entered the health system through a pulmonologist rather than a mental health professional. This pattern fits evidence that mental health knowledge is only weakly associated with help-seeking behaviour (Grosselli et al., 2025). It also fits recent qualitative evidence that concern for family honour and reputation suppresses help-seeking among university students in Pakistan (Shabbir et al., 2026). This extends Karasz's (2005) work on explanatory models and Kirmayer and Young's (1998) analysis of somatisation: in a stigmatising environment, the body may function as a legitimate channel for distress. That channel lengthens the delay before psychological care. We propose:

- **P3.** Cultural interpretive frames, namely stigma, supernatural attribution and intergenerational differences in mental health literacy, moderate the strain process less by preventing individual recognition than by shaping disclosure and the route of help-seeking. Early help is sought through somatic medicine and psychological care is deferred, which prolongs loss spirals.

Taken together, the framework integrates three literatures that have largely developed separately: working-student role conflict, occupational recovery and cultural psychiatry. Provides a context-specific

understanding of why hired graduate student workers in stigma-laden environments in collectivist cultures might be at risk. The results are aligned with survey data which indicates that graduate students suffer high rates of anxiety and depression (Evans et al., 2018; Satinsky et al., 2021) and that the work–family interface is a predictor of mental health risk (Levecque et al., 2017). They include a description of the origins of and approaches to managing risk.

5.2 Practical implications

For universities. Working professional students should not be expected to give up their recovery time for graduate programs. This can be done through consistent deadlines, lenient submission periods, asynchronicity and avoiding assessment clustering. Student support services should be provided after hours. The promotion of mental health literacy with positive effects on help-seeking attitudes should explicitly cover rumination, somatic symptoms and sleep as indicative of strain among university students (Shahwan et al., 2020).

For employers. Triple role strain can be mitigated by providing staff members who are doing further studies with study leave around examinations or flexible hours and an anti-stigma programme at work (Hanisch et al., 2016) that has been found to have a positive impact on attitudes.

For health services and policy. General practitioners and specialists should be alert to signs of distress which may present somatically; diagnostic pathways should be established for psychological services when physical investigations are negative, and pathways should be open, clear, and available. Older family members and their explanatory models, which influence the support available to young adults, should be targeted in public awareness campaigns, including media campaigns participants recommended. Short-term self-management interventions like exercise may also be encouraged as complementary treatments to professional treatment (Knapen et al., 2015). As young people are concerned about the credibility of the information provided online (Lal et al., 2018), online information must be signposted to credible sources.

5.3 Limitations

The findings should be interpreted in light of several limitations. First, the sample was small (n = 7), with a single focus group and one interview. Although information power was enhanced by a narrow aim and a specific sample (Malterud et al., 2016), the range of experiences captured is limited, and meaning saturation is unlikely to have been reached (Hennink et al., 2017). Second, all participants were middle or upper-middle class, bilingual and based in one metropolitan city. Experiences of lower-income students, of students outside Karachi and of students who are not in salaried employment may differ substantially. Third, the focus group format may have encouraged socially desirable or convergent accounts on a stigmatised topic. Fourth, data were collected at a single point in time, partly during the COVID-19 pandemic, which independently increased anxiety. The specific contribution of the work–study routine cannot therefore be isolated. Fifth, the original study records do not include session dates, durations or verbatim transcripts of the focus group, and individual extracts cannot be traced to individual participants. Member checking was not undertaken. Sixth, symptom terms such as *depression*, *anxiety*

and *insomnia* are participants' own descriptions, not clinical diagnoses. Finally, as with all qualitative research, the findings are interpretive and do not support causal or statistical inference. The word *impact* in the earlier title of this work has been removed for this reason.

5.4 Directions for future research

Future research should include: (a) the extension of the qualitative inquiry to larger, more diverse samples in cities throughout Pakistan across socioeconomic status and programme type and increase the sample of individual interviewees to reduce group conformity; (b) testing P1–P3 quantitatively, e.g., by modelling the WSF conflict as a three-domain construct and by examining the nature of recovery experiences (Sonnentag & Fritz, 2007), perseverative cognition and sleep quality as sequential mediators, and explanatory models and stigma as moderators; (c) implementing diary or experience-sampling designs to capture the daily dynamics of demands, recovery and strain; and (d) evaluating interventions that combine scheduling flexibility with mental health literacy for working graduate students.

6. Conclusion

The time taken by full-time employment, combined with the demands of graduate school and household responsibilities for the working graduate students in this study weakened their mental health by taking away time, sleep, relationships and self-time. Worry took over the rest of the hours, sleep eluded them and a feeling of strain began to surface as anxiety, depressive moods, irritability and symptoms in the body. Participants reacted by attempting to make up for what was lost, primarily time spent with family, and agreed to professional help. However, they lived in a society that trivialised mental illness, explained it with reference to the supernatural, and stigmatised it, which affected when and how they sought treatment. By reframing work–study conflict as triple-role strain and specifying recovery deficit and cultural interpretation as the key processes, this study offers a framework and three propositions to guide research and practice for this large and under-studied group of students.

Declarations

Ethics approval and consent to participate: This study was approved by the TSUOS Scientific Ethics Committee, Tashkent State University of Oriental Studies (approval no. TSUOS-1347-2026, dated 22-02-2026). All participants were adults who took part voluntarily after being informed of the purpose of the study, and informed consent was obtained from all participants. All data were anonymized, and the study was conducted in accordance with relevant ethical guidelines and regulations.

Ethics approval and consent to participate: See Section 3.6. Participation was voluntary, and participants were informed of the purpose of the study.

Data availability: Anonymised extracts supporting the findings are included in the article. The full study records are not publicly available, to protect participant confidentiality, but are available from the

corresponding author on reasonable request.

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Figures

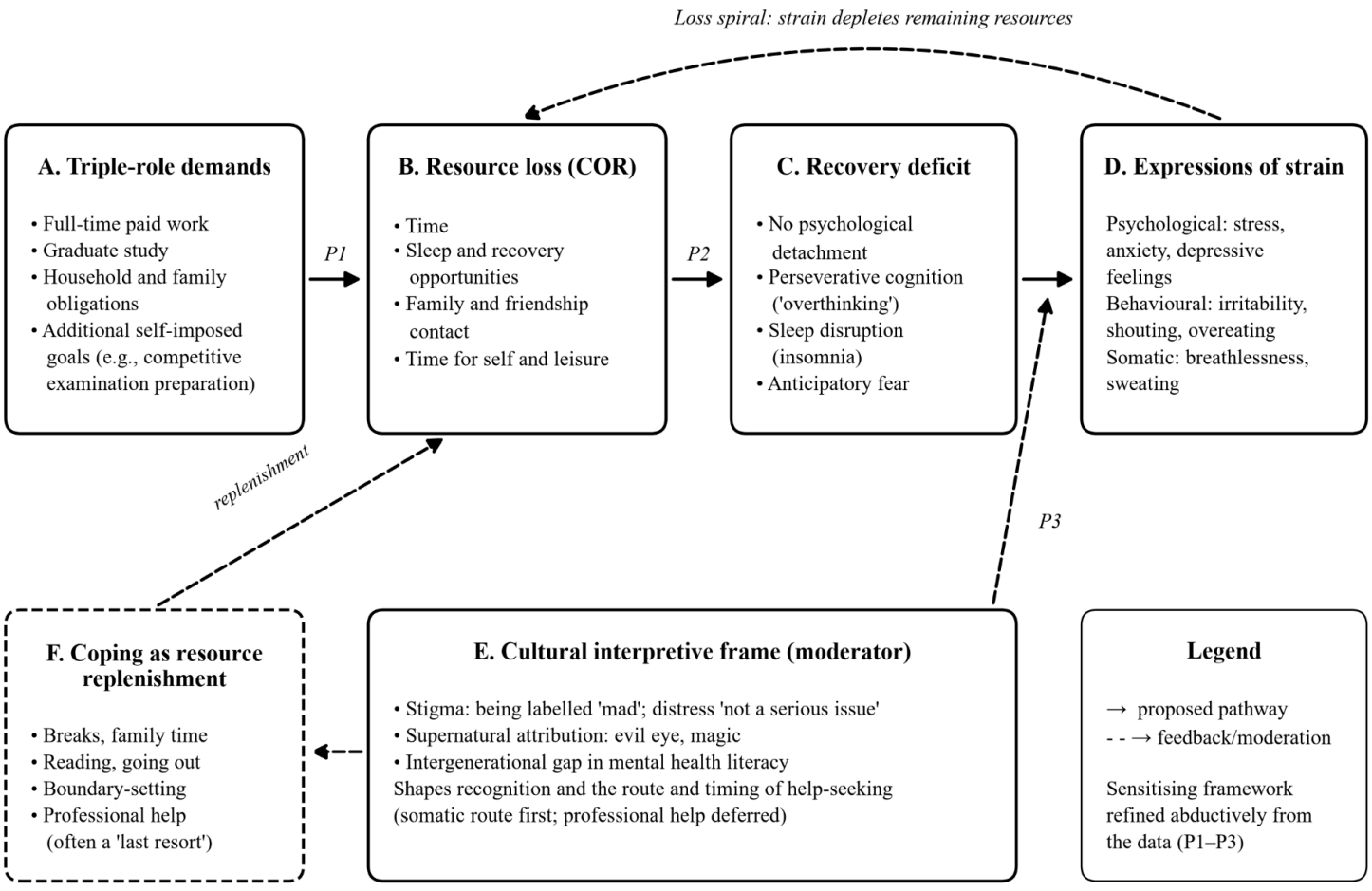


Figure 1

Triple-role resource-depletion framework

Note: Solid arrows indicate proposed pathways; dashed arrows indicate feedback (loss spiral, replenishment) and moderation. COR = conservation of resources. *Source:* Developed by the authors from Hobfoll (1989), Meijman and Mulder (1998), Brosschot et al. (2006) and Karasz (2005), and refined through the present analysis.