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# Analysis of the Current Situation and Influencing Factors of College Students' Academic Stress-Taking the Undergraduates of Medical Class in Wenzhou Medical University as an Example

Yinuo Mao, Meiting Ye, Jing Xu\*

First Clinical Medical College of Wenzhou Medical University (School of Information and Engineering), Wenzhou 325200, Zhejiang, China

\*Author to whom correspondence should be addressed.

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**Abstract:** Amidst the ongoing evolution and incremental perfection of higher-level medical education, academic stress—its salience among undergraduate cohorts in medicine ever more accentuated—emerges as an element exerting discernible impact upon personal well-being (both physicality and mentality), trajectory of scholastic advancement, alongside projections regarding subsequent professional adeptness. Entrusted with a pivotal mandate for talent cultivation, Wenzhou Medical University—recognized by disciplinary emphasis on medicine within a framework of cross-disciplinary integration—finds its undergraduate body manifesting uniquely demarcated features in relation to academic burden. By directing focused attention toward this population subset at Wenzhou Medical University, analyzed is the prevailing status quo of their academic strain through a systematic lens, wherein specificities unique to said context surface conspicuously. The complexity underpinning sources that either initiate or heighten degrees of stress yields itself for exploration; from observable associations with achievements in coursework, frameworks supporting educational dissemination by institutional authorities, contexts defined by familial backdrop, together with intrapersonal characteristics anchoring individual subjectivity, evidence is gathered. From these instances, synthesized are perspectives aiming not merely at abstract theoretic enrichment but at actionable guidance oriented towards refinement of pedagogic paradigms, proportional reduction in psychological pressurization reported amongst students, and ultimately, at facilitation of holistic developmental outcomes.

**Keywords:** Undergraduate students in medical disciplines; Academic stress; Current situation; Influencing factors; Wenzhou Medical University

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## 1. Introduction

Academic stress, within the context of collegiate environments, has been defined as a state marked by psychological tension and a concomitant physical-psychological burden manifesting during academic pursuits. Constituted by elements including but not confined to study workloads, pedagogical exigencies, as well as anticipations aligned with personal

development, this phenomenon becomes particularly salient among university populations<sup>[1]</sup>. From observable patterns, it is inferable that moderate levels of such stress may fulfill an incentivizing function for student motivation and advancement in scholarship; deleterious outcomes—evidenced through impairment of both somatic and cognitive wellbeing, attenuation of learning processes, and stagnation in multidimensional skill formation—have nevertheless been connected with disproportionate intensification of said stressors. A discernible escalation in academic strain characterizes recent cohorts at Wenzhou Medical University, situationally unique due to ongoing curricular reform initiatives within medical education, persistently heightening professional qualification benchmarks within the healthcare domain, alongside familial and social expectations converging upon students undertaking medical studies. Incidences have occurred wherein undergraduates report manifestations of performance-related anxiety, sustained mood disturbance, decremental engagement in educational activities, and adverse shifts in comprehensive health parameters—scholastic output being equivalently affected<sup>[2]</sup>. Wenzhou Medical University, as the locus of inquiry, is selected for a focused examination concerning undergraduate demographics embedded within medical faculties. Upon these cohorts is imposed an evaluative lens directed toward the manifestations observed in academic stress—both in its phenomenological presentations and contributory determinants discernible among student populations. Engaged thereby are layers of complexity attendant to scholastic rigor encountered by undergraduates whose experiences reflect particularities unique to this institutional context; implications emergent from data accrued through such systematic canvassing further disclose configurational patterns underlying stress-related phenomena affiliated with medical education.

## **2. Current Status of Academic Stress Among Undergraduate Students in Medical Programs at Wenzhou Medical University**

### **2.1. Academic pressure is highly prevalent, with an overall high workload**

An epistemological architecture of marked extensiveness and analytical rigor, one finds underpinning medical science a schema defined by robust logical cohesion. Constituted within this paradigmatic system are foundational realms—basic medicine, clinical sciences, and preventive fields interlaced in their schematic arrangement—whose complex internal dependencies necessitate from learners at Wenzhou Medical University an unwavering intellectual investment. A curriculum environment is encountered where the amalgamation of theoretical underpinnings with practical engagement forms the central axis around which talent-construction objectives revolve; evidenced, this integration can be discerned by the curricular design whose primary aim situates itself in fostering multidimensional competence through immersive instructional praxis observable across the undergraduate population<sup>[3]</sup>.

Observed through the constriction of academic schedules, medical undergraduates manifest exposure to coursework weighted substantially above conventionally accepted collegiate norms. Traversed by students are pedagogical sequences commencing with structural disciplines of anatomy, physiology, and biochemistry and progressing into advanced compartments as exemplified by diagnostics, internal medicine and surgery; appended thereto are electives individualized based on particularized professional trajectories selected at matriculation. Set forth herein are learning standards and evaluative criteria postposed upon discrete disciplinary elements, whereby academic advancement hinges fundamentally on demonstrable proficiency within each course segment. Interruption in eligibility for merit-based financial aid or competitive postgraduate opportunities emerges, instances noted wherein isolated deficiencies provoke cessation of progress along anticipated scholarly pathways<sup>[4]</sup>.

With regard to temporal structures, durations characterizing studies in medical undergraduate programs, those exceeding standard tertiary cycles constitute a prevailing pattern; the adoption by several specializations of the “5+3” compound, substitutive of ordinary quadriennial frameworks, stands indicative. Identifiable therein are extended periods insisting upon not only expository but also experiential participation over a sequential span measuring no less than five years; superimposed onto these intervals are clinical immersions alongside research-intensive internships, thereby effecting amplification of cognitive and operational requirements imposed. This scenario reflects another dynamic, namely the

perpetual transformation generated through relentless advancements permeating contemporary biomedical technology—a phenomenon whereby innovation in diagnostic strategies and therapeutic modalities renders static knowledge obsolete, thus compelling continuous augmentation beyond foundational mastery. Manifest thus is the aggregate intellectual pressure confronting students: rooted both in sustained acquisition of elementary concepts and in the real-time assimilation of technological developments infiltrating every aspect of the profession's present and future practice<sup>[5]</sup>.

## **2.2. Stress manifestations exhibit grade-level differences with distinct stage-specific characteristics**

Manifestations of academic strain among undergraduates enrolled in medical programs at Wenzhou Medical University, when observed across distinct academic years, are shaped by particular trajectories of development. Noticeable differentiation emerges in both the origins and outward expressions of such pressures among cohorts. Manifest among the cohort of first-year students—those navigating the liminal zone situated between post-secondary and higher educational environments—is a pronounced emergence both of unfamiliar pedagogic paradigms and novel modalities of peer engagement, which are revealed as salient vectors engendering psychological disequilibrium. Registerable during this incipient phase is a pervading unfamiliarity with specialized medical discourse, such that adaptive processes toward disciplinary language persist unresolved; a simultaneous misfit manifests regarding effective study schemas, alongside embedded dilemmas related to assimilation within the rapid tempo demarcating institutional university life. From curricular observations oriented predominantly around general-knowledge frameworks intertwined with rudimentary discipline-specific content—a didactic terrain generally classifiable under moderate difficulty—phenomena including enduring cognitive opacity and intensification of affective stressors nonetheless report frequent incidence for numerous novice entrants. Such constellations may be traced via instances where individualized academic methodicalness remains insufficiently cultivated, further intensified through perfunctory immersion in the expansive thematic reach intrinsic to foundational medicine<sup>[6]</sup>.

Upon advancement to subsequent academic stages—the second and third years figured by initiation into professional major coursework—a marked transformation in the character of instruction becomes increasingly perceptible. Escalation of conceptual sophistication and abstraction across subject matter establishes itself not merely quantitatively but structurally; concurrently, an accentuation arises in syntagmatic relations interlinking discrete course elements. Manifest necessity emerges for analytical reasoning capacities and cross-domain integrativity, skills expected now as baseline competencies. Empirical iteration captures student experience at these levels as contoured not only by augmented volumes of assigned study but also by paralleling demands arising from extramural qualification pursuits: most prominently, national English proficiency rubrications and mandated digital literacy evaluations. In such periods, frequent involvement evidences itself in research projects or participation within competitive scholarly circuits. The aggregate of intersecting obligations thus inscribed results in observable maxima of cumulative workload pressure, discerned evidently to impinge upon overall undergraduate well-being within these strata<sup>[7]</sup>.

## **2.3. Significant differences in professional orientations with distinct stress sources**

Under the academic schema instituted by Wenzhou Medical University, there manifests a hierarchically organized yet multifaceted arrangement of medical educational tracks, within which an array of disciplinary orientations is observable; this results in configurations of curricular scaffolding not uniform across all programs. Emphatically present are Clinical Medicine and Optometry, identified as foundational axes around which university-level instruction converges most centrally<sup>[8]</sup>. Attributable to these fields is a pronounced emphasis upon cultivating practitioners whose diagnostic capacity and therapeutic proficiency have been substantiated through sequential engagement with intensively structured practical modules—the preponderance of such experiential learning, situated predominantly towards later stages of study, serving as a hallmark for differentiability among both academic experience and stressor typologies encountered by students. Instances arising from course distributions underscore a marked variability: immersive exposure to clinical simulations characterizes Clinical Medicine curricula, whereas skill-based technical practicums delineate the progression in Optometry

studies. Hence, one discerns that heterogeneity in student challenge emerges directly from divergences inscribed within programmatic architectures themselves.

Substantial commitment to clinical rotations and experiential apprenticeships becomes requisite for matriculants, from which emerge academic tensions pblueominantly linked to advanced skills acquisition within clinical simulacrums, assimilation of discipline-specific knowledge corpus, along with an ever-present preoccupation regarding licensure examinations set forth by regulatory bodies governing medical practitioners<sup>[9]</sup>.

A distinct configuration can be extrapolated upon examination of Medical Laboratory Science and Pharmacy specialties at this institution: integration of experimental technique mastery synchronizes tightly with traditional theoretical transmission, giving rise to curriculum models wherein laboratory-centric modules pblueominate numerically and structurally. Obligations incumbent on students include iterative execution of laboratory procedures coupled with systematic completion of analytical reporting tasks—sources of pressure here traceable to requirements for progressive refinement of technical capabilities within experimental domains, interpretational agility vis-à-vis data synthesis, and an augmented grasp over foundational constructs germane to their fields<sup>[10]</sup>.

Divergent yet equally specialized, nursing as cultivated under this university's aegis, envisions not merely procedural proficiency but also a nuanced advancement of interpersonal capacity entwined with ethical sensibility; theoretical robustness in core nursing principles must coincide with fluid command over complex caring maneuvers. Conferral of humanistic sensitiveness and communicative adroitness operates as parallel mandates alongside operational competency. From such programmatic designs arise principal vectors of academic strain, namely those associated with intensification of skill drills in allied health settings, formidable demands embedded within protracted periods of professional placement, and persistent reflection upon trajectories attainable within the evolving labor scape of the nursing vocation, as ascertainable through institutional experience<sup>[11]</sup>.

### **3. Analysis of Factors Influencing Academic Stress Among Undergraduate Students in Medical Programs at Wenzhou Medical University**

#### **3.1. Academic factors: The unique nature of medical specialties constitutes the core foundation for stress generation**

Distinguished by a distinctive and intricate academic architecture, medical studies have been observed at Wenzhou Medical University to serve as the principal determinant in engendering elevated levels of scholarly pressure among undergraduates pursuing these disciplines; from students engaging with programs outside this specialized sphere, such experiences are markedly divergent. Attributable to specialization characterized by pronounced systematicity and methodological rigor, the medical curriculum encompasses an extensive array of abstracted content: anatomy of the human body is juxtaposed with physiological mechanisms, while subject matter traverses diagnostic protocols for pathologies and methods aligned with established therapeutic interventions—this expansive corpus calls forth from students a persistent commitment not solely to rote memorization but also to synthetico-integration across disparate conceptual domains<sup>[12]</sup>.

Within the bounds delineated by this instructional configuration, interpretive imprecision or interruptions in conceptual understanding—though minute their initial manifestation might be—ultimately materialize as impediments to ensuing professional learning arcs; such impediments may later emerge with clarity during enactment of tasks within clinical environs destined for post-scholastic deployment. Incorporated into any regimen designed for medical trainees appears thus a rigorously maintained study discipline, necessitated by the persistently substantive demands characterizing those formative experiences endublee throughout academic advancement<sup>[13]</sup>.

#### **3.2. School education factors: the influence of teaching and management mode**

Decisively shaping the trajectory of medical undergraduates' academic experiences, schools as institutions entrusted with talent cultivation inevitably exert deep influence—not only by means of their specific pedagogic paradigms and curricular

schema but also through established mechanisms of instructional governance. Within Wenzhou Medical University, an intention toward educational optimization is discernible; nonetheless, embedded within practical instruction and day-to-day managerial conduct, persistent challenges present themselves—by which can be seen not infrequently a further aggravation of scholarly stress confronted by trainees.

In examination of curriculum structuration, one discovers in some programs schedules constructed with excessive density, and divisions between theoretical exposition and praxis insufficiently harmonized—a configuration leaving learners bereft of opportunity for thorough internalization or systematic consolidation of acquirable knowledge. To such enactments, students are positioned in passivity before voluminous academic content, necessitating rapid surface assimilation rather than reflective engagement. From constancy in such high-pressure environments may, accordingly, significant intensification of academic duress among student cohorts often be inferred.

### **3.3. Family environment factors: the dual influence of expectation and support system**

Of considerable significance, family dynamics—manifested in educational methodologies, expectation levels, and the provision of support—can be identified as a foundational milieu shaping undergraduates' academic stress within medical specializations. At Wenzhou Medical University, within the assemblage of undergraduate students, familial heterogeneity is conspicuously situated as a formative determinant, while micro-environmental differentials peculiar to each household strongly underpin variegated manifestations of academic strain. Evident within certain domestic spheres exists an accentuated valuation attributed to the medical profession: stabilization in career prospects and accumulation of societal regard are frequently consolidated by older family members into forms of persistent expectation. Through such transmitted value systems, students become subjects ensnared in cycles of exhortative pressure for continuous scholastic refinement; the imperative remains not restricted merely to methodical engagement in examination preparation designated by national licensing protocols but extends covertly toward surpassing contemporaries—an axiom seldom vocalized yet ubiquitously presupposed.

A regulatory framework thus emerges, wherein self-appraisal among students finds determination according primarily to parental standards imposed residually through both explicit and implied communication strategies. Tension over non-attainment inaugurates patterns of apprehensiveness that result in the perennial advancement toward superlative achievement. Notably, regarding those placed within supportive domestic ecosystems where emotional intimacy or financial assistance persistently manifest, an observable diminution occurs in subjective burdens engendered from demanding coursework. It can be seen in these cases: endorsement furnished by kin during moments marked by adversity appears to facilitate psychological moderation, leading to more adaptive attitudes and recalibrations in coping methods. Distinction thus arises between this paradigm and contexts characterized conversely by fragility in empathy or deprivation of material reciprocation within the familial unit.

### **3.4. Individual Factors: Intrinsic Influence of Personal Traits and Abilities**

Student possession of intrinsic attributes—extending into the domain of innate characteristics suffused with distinct cognitive faculties and variegated psychological dispositions—emerges as a central mediator shaping not only perception of but also engagement with stressors emanating from academic exigencies. Visible within such theoretical constructs is an interpretive model through which divergent reactions among undergraduates, particularly observable in cohorts orienting themselves toward Wenzhou Medical University's medical curricula, illuminate patterns of response heterogeneity when faced with equivalent scholastic provocations. Delimitable along three primary axes centered on individual predispositions, this variation brings forth several fundamental differentiators.

Of paramount significance, differentiation appears in relation to learning aptitudes. Embedded across the multiple layers of medical pedagogical design are requirements rooted in refined logical inference, advanced mnemonic proficiency, and cross-disciplinary integrative comprehension. With these demands confronted, students whose foundational abilities exhibit particular congruence to curricular requisites find accommodation occurs at a notably accelerated pace; their

capacity for methodological innovation directed toward specific academic undertakings presents itself with marked regularity. Through processes manifesting efficient adaptation alongside prompt internalization of study protocols—which function as pivot points for engagement with curricular obligations—the pressure experienced vis-à-vis educational activities is observed to be attenuated. In contradistinction, it is those deficient in relevant skillsets who neither assimilate requisite content thoroughly nor succeed in systematizing efficacious approaches; apparent here are instances of diminished operational effectiveness, extended duration for completion of assigned academic tasks, and perceptibly elevated levels of resultant stress clustering around scholarly endeavors.

## 4. Conclusion

To the cadre of medical undergraduates, a duty integral to the future reconfiguration anticipated within the healthcare infrastructure is assigned, with demands of considerable scholarly rigor frequently entrenched in their academic path. Visible are these burdens, both as tangible imprints left upon somatic and psychological health and as influences discernable on individualized progression along educational trajectories—yet also present are their echoes in evaluative accounts relating to standards characterizing professional formation processes and the developmental arcs traced by broader medical systems. Evident from observation at Wenzhou Medical University stands an extrapolation: remedial initiatives manifest most efficaciously when subject to synchronous orchestration linking university administrative oversight, engagement originating in familial units, and autonomous strategies undertaken by students themselves.

## Disclosure statement

The author declares no conflict of interest.

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