

CYBERCHONDRIA AND ACADEMIC PERFORMANCE OF NURSING STUDENTS: A NARRATIVE REVIEW

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ABSTRACT

Background: Nursing students frequently rely on online health information for academic and personal purposes. Excessive health-related searching, termed cyberchondria, is linked to health anxiety, stress, and problematic internet use, potentially affecting academic performance. Objective: This review synthesizes recent evidence (2020–2025) on the relationship between cyberchondria and academic performance among nursing students and related health-professional cohorts. Methods: A narrative review was conducted using databases including PubMed, Scopus, and Google Scholar. Search terms included cyberchondria, nursing students, academic performance, health anxiety, and digital literacy. Studies published in English between 2020 and 2025 were reviewed. Results: Thirteen relevant studies were identified. Cyberchondria prevalence is high among nursing and health-science students, often associated with internet addiction, health anxiety, and low eHealth literacy. Direct links between cyberchondria and academic performance were found in Jordanian nursing students and Indian dental students. Indirect pathways through anxiety, smartphone addiction, and poor health literacy were reported in multiple contexts, including Egypt, Turkey, and Pakistan. Conclusion: Cyberchondria negatively affects academic performance via distraction, anxiety, and impaired concentration. However, when paired with strong digital health literacy, responsible online searching may support learning. Faculty-led interventions should target digital literacy, stress management, and healthy internet use.

Keywords: Cyberchondria, Nursing students, Academic performance, Health anxiety, Digital health literacy.

INTRODUCTION

The integration of digital technologies into education has transformed how nursing students acquire knowledge, complete assignments, and prepare for clinical practice. With smartphones, laptops, and high-speed internet, students now have 24/7 access to health-related information, ranging from peer-reviewed articles to unverified websites and forums. While this access offers academic advantages, it also carries risks, particularly the phenomenon of cyberchondria.

Cyberchondria, defined as excessive or repeated searching for health-related information online that leads to increased distress or anxiety, has become increasingly prevalent among health-science students. Unlike the general population, nursing students are uniquely vulnerable because of their dual role as learners and future healthcare providers. Their training emphasizes critical appraisal of health information, yet their relative inexperience may make them more susceptible to misinformation and overreliance on internet resources. The academic consequences of cyberchondria are multifaceted. Time spent on compulsive online searching detracts from structured study, while anxiety and cognitive overload impair concentration and memory. Studies from Jordan, India, and Egypt confirm that cyberchondria is negatively correlated with GPA, health literacy, and exam performance. Importantly, the COVID-19 pandemic intensified this phenomenon, as students increasingly turned to digital resources for both academic and personal reassurance. Understanding the interplay between cyberchondria and academic performance is vital for nursing education. This review synthesizes recent evidence and highlights implications for curriculum development, student well-being, and professional readiness.

METHODS

This narrative review included studies from 2020 to 2025. Searches were conducted in PubMed, Scopus, Web of Science, and Google Scholar with combinations of cyberchondria, nursing students, health science students, academic performance, GPA, anxiety, and digital literacy.

Inclusion criteria:

- Studies involving nursing or health-professional students.
- Examination of cyberchondria with academic or psychological outcomes.
- Peer-reviewed, English-language articles (2020–2025).
- Thirteen eligible studies were included after screening.

RESULTS

Prevalence and Predictors:

- Moderate-to-high cyberchondria prevalence was reported in Egypt (Ali et al., 2024), Turkey (Varer Akpınar et al., 2023), Jordan (Mrayyan et al., 2023), and Pakistan (Sabir & Naqvi, 2022).
- Internet addiction, smartphone addiction, and COVID-19–related anxiety consistently predicted cyberchondria.
- Low eHealth literacy was linked to higher cyberchondria severity (JMIR, 2025).

Academic Performance Associations:

- Direct: Nursing students in Jordan showed GPA as a predictor of cyberchondria-related constructs (Mrayyan et al., 2023). Dental students in India with <65% marks had significantly higher cyberchondria (Patanapu et al., 2022).
- Indirect: Poor health literacy increased cyberchondria via health anxiety in Egyptian nursing students (Ali et al., 2024). Turkish students demonstrated that COVID-19 anxiety mediated the internet addiction–cyberchondria relationship (Varer Akpınar et al., 2023).

Comparative Findings:

- Medical students (Çalhan & Erdoğan, 2023) and physical therapy students in Karachi (2025) also showed high cyberchondria, suggesting this is a cross-disciplinary issue.
- A study across Ege University health science faculties (2016–2017) confirmed that frequent internet use and health problems increased risk.

DISCUSSION

The evidence demonstrates that cyberchondria is prevalent among nursing students and can undermine academic performance directly (via reduced grades) or indirectly (via anxiety, distraction, and poor study efficiency).

Negative pathways:

- Health anxiety and stress impair concentration.
- Compulsive searching consumes time better spent studying.
- Conflicting information undermines clinical confidence.

Positive potential:

- Guided use of online resources can support independent learning.
- When paired with digital health literacy, searching may strengthen critical thinking and lifelong learning skills (JMIR, 2025).

RECOMMENDATIONS

1. Integrate Digital Health Literacy into Curriculum

- Nursing curricula should explicitly teach students how to evaluate online health information for credibility, accuracy, and clinical relevance.

- Collaboration with librarians and digital education specialists can strengthen these modules.

2. Promote Balanced Internet Use

- Workshops on time management, responsible digital behavior, and stress coping strategies can help prevent compulsive health searching.

- Universities should provide resources for managing screen time and encourage face-to-face learning experiences.

3. Support Mental Health and Counseling Services

- Counseling centers should be equipped to address anxiety and health-related obsessions linked to cyberchondria.

- Peer support programs and mentorship can normalize challenges while reducing stigma.

4. Leverage Technology for Positive Use

- Faculties can provide access to vetted databases and mobile applications (e.g., PubMed, CINAHL, Cochrane Library).

- Integration of AI-driven academic tools may enhance structured learning and reduce reliance on random internet content.

5. Encourage Faculty Involvement

- Lecturers and clinical instructors should model responsible online information-seeking and incorporate discussions about misinformation into lectures.

- Continuous faculty development in digital pedagogy can improve their ability to guide students.

6. Future Research Directions

- More longitudinal studies are needed to explore the causal relationship between cyberchondria and academic performance.

- Comparative research across nursing, medical, and allied health disciplines can clarify discipline-specific vulnerabilities.

- Qualitative studies may provide deeper insight into students' lived experiences of cyberchondria and learning.

7. Educational Implications:

- Digital health literacy training should be embedded in nursing curricula.

- Counseling and stress-management interventions can address health anxiety.

- Structured e-learning environments should replace unregulated internet use.

CONCLUSION

This review highlights the high prevalence of cyberchondria among nursing and health-science students, underscoring its potential to undermine academic performance through mechanisms such as health anxiety, internet addiction, and poor digital literacy. Evidence indicates that students with lower GPA scores or poor exam performance tend to report higher levels of cyberchondria, suggesting a cyclical relationship where academic struggles exacerbate online health searching, which in turn further disrupts learning.

At the same time, cyberchondria cannot be dismissed as purely negative. When supported by strong digital health literacy and critical thinking skills, online information-seeking may empower students, enhance independent learning, and foster professional competencies. Therefore, the challenge lies not in discouraging online searching altogether but in channeling it toward structured, reliable, and educationally productive practices.

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