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DIALOGUE, DEBATE, AND DISCUSSION

Responsible Research: Reflections of Two Business Scholars Doing Mental Health Research During COVID-19

Stephen X. Zhang[1] and Jiyao Chen[2]

[1]Entrepreneurship, University of Adelaide, Adelaide, SA 5000, Australia, and [2]Innovation Management, College of Business, Oregon State University, OR 97330, USA
Corresponding author: Stephen X. Zhang (stephen.x.zhang@gmail.com)

Abstract

This essay reflects the journey of two business scholars, Stephen X. Zhang and Jiyao Chen, who ventured into mental health research during the COVID-19 pandemic. We experienced first-hand how health sciences have operated their publication systems in ways that uphold scientific standing while addressing real-world problems. In doing so, we found the publishing expectations and norms in health and medical sciences to be vastly different from those in management. This essay further discusses aspects such as the preference for evidence over theory, the relationship with basic sciences, diverse evaluation criteria, encouragement of exploration and replication, timeliness, and democratization and inclusivity of scholarship as concrete steps of responsible research.

摘要

本文是由两位管理学者，Stephen X. Zhang 和陈吉耀合作写成。他们，在新冠疫情期间做了许多有关心理健康的研究，亲身体验了健康科学如何在保持科学性的同时解决现实世界的问题。同时，他们发现了在健康和医学领域，论文发表的期望和范式与管理学领域的迥然不同。作者因此建议管理学同仁，一起l来讨论如下问题：论文是否可以强调证据而非理论？管理学与基础科学的关系是什么？是否可以有多样化的评价标准？是否应该鼓励探索和复制型研究？论文发表的及时性是否重要？学术的民主化和包容性如何实现？

Introduction

In the early months of 2020, an unprecedented crisis due to the outbreak of COVID-19 upended life. For the academic world, this period presented many scholars with both an existential challenge and a moral responsibility on the relevance of our research in addressing real-world problems. We resonated strongly with the philosophy of responsible research to address societal challenges and real-world problems, as advocated by the responsible research network (c.f., George, Howard-Grenville, Joshi, & Tihanyi, 2016; Khurana, 2010; Tsui, 2013, 2016; Tsui & McKiernan, 2022; Van de Ven, 2007; Van De Ven & Johnson, 2006; Wiklund, Wright, & Zahra, 2019, and calls by Responsible Research in Business and Management [Co-founders of RRBM 2017, 2020]). We, as two scholars with business research backgrounds, sought to leverage this knowledge and expertise in ways that were beneficial to society.

Despite our resolve, we found that our background in business research ill-prepared us to venture into health and medical research. While we publish reasonably well in top business journals, which focus on theoretical advancements, we were novices when it came to conducting useful research,

which requires a significantly different approach. But the crisis did not afford us the luxury of hesitation; we resolved to learn as we went along to conduct responsible research in a learning-by-doing journey. We grappled with numerous challenges and reflected on the paradigms and systems that we have learned in conducting and publishing in top business journals such as *Academy of Management Journals* (e.g., Chin, Zhang, Afshar-Jahanshahi, & Nadkarni, 2021; Tang, Nadkarni, Wei, & Zhang, 2020a; Tang, Zhang, Li, Wei, 2020b), *Entrepreneurship Theory and Practice* (e.g., Schmitt, Rosing, Zhang, & Leatherbee, 2018; Wang, Eddleston, Chirico, Zhang, Liang, & Deng, 2023; Zhang & Cueto, 2017), *Academy of Management Review* (Chen & Adamson, 2015), *Journal of Operations Management* (Chen, Damanpour, & Reilly, 2010, 2015), and *Research Policy* (Chen, Shao, Fan, 2021b).

This journey, though initially challenging, ultimately proved possible. Our work was published in close to 40 papers (see * in the reference list) in top health sciences journals (Q1 by impact factor) such as *Brain, Behavior, and Immunity*, *Epidemiology and Psychiatric Sciences*, and *International Journal of Social Psychiatry*, gaining thousands of Google Scholar citations and mentions in hundreds of media outlets, such as Forbes, Yahoo News, Drugs.com, Fast Company, HuffPost, and MSN.[1] For example, Yahoo News featured 'Study on health impact of COVID-19 lockdown reveals who might be most at risk from poorer well-being'. Fast Company shared 'How to stay healthy during a COVID-19 lockdown, according to 64 cities in China' on 9 April 2020, based on Zhang's study in *Psychiatry Research*. Through our research, we experienced what it takes to contribute to pressing problems in the world.

Our journey, upon reflection, can serve as an illustration of how business scholars can undertake responsible research characterized by its emphasis on usefulness and pragmatism. We begin our reflection by discussing our venture into mental health research during COVID-19. This leads to the lessons learned during our journey into research in the health and medical field, highlighting the challenges and opportunities encountered. Subsequently, we draw on comparisons between research practices in the management and health fields, in terms of their alignment with responsible research principles. The paper concludes with some recommendations on broader implications for addressing societal challenges.

A Journey of Experiential Learning to Do Mental Health Research During COVID-19

Our journey into the realm of mental health research started when the COVID-19 pandemic first occurred in China in early 2020 – we noticed anxiety among people in China. Soon, mental health symptoms compounded as the implementation of stringent measures like lockdowns and isolation disrupted life and work. We started hearing more about people struggling with isolation, job loss, and the difficulties of balancing work and family life under these stringent measures. It soon became apparent that while the world was grappling with a new virus, a mental health crisis was looming. Driven by a sense of urgency, we decided to research this emerging issue using our experience in conducting primary survey-based field studies and meta-analysis in business. While the domain knowledge differed, the underlying research methodologies shared similarities, enabling us to contribute to the health field. Nonetheless, we soon discovered many differences in expectations between publishing in management journals compared to health journals.

Predictive Factors for Mental Health and Well-Being of Working Adults

Initially, we embarked on primary survey studies on mental health and well-being, and focused on identifying predictors of mental health symptoms such as anxiety, depression, and insomnia among health workers and the general population. During our examination of predictive factors for mental health symptoms, we focused on the effects of job and occupational factors such as organizational support on these mental health symptoms based on our research knowledge in management. We began with a similar approach, such as employing Ordinary Least Squares (OLS) regressions as is commonly done in management research. However, we quickly realized that we needed to focus on the levels of

symptoms based on cutoff points in prognostic studies. We learned later those prognostic studies follow guidelines such as EQUATOR (Enhancing the QUAlity and Transparency Of Health Research).

We delved into factors predicting mental health *symptoms*, such as in Zhang et al. (2020a), Zhang, Wang, Rauch, and Wei (2020f), and Tang et al. (2020a, 2020b). These predictive factors included geographical proximity to crisis epicenters (typhoon eye theory vs. ripple theory), individual beliefs (e.g., belief in conspiracy theories), and public health practices (e.g., hand hygiene and mask-wearing). We also investigated the impact of occupational and social factors on mental health, such as organizational support and work from home, as in Li, Zhang, and Graf-Vlachy (2022) and Graf-Vlachy, Sun, and Zhang (2020). Some articles, like Xu et al. (2022) and Pavlova, Rogowska, and Zhang (2023), investigated mental health under COVID-19 as well as the Russia-Ukraine War, showing the psychological toll of war on both civilians and combatants and their coping strategies. Such identification of predictors could help resource allocation and prioritization on mental health assistance during the crisis period.

The first paper published was Zhang et al. (2020f), which provided early evidence on the health and well-being status of adults one month into the onset of the COVID-19 pandemic. The study consisted of a survey of 369 adults across 64 cities in China between 20–21 February 2020 on several key parameters, including health conditions, distress levels, life satisfaction, employment status, chronic health issues, and daily exercise duration. Even this early on, we found adults not actively engaged in work showcased deteriorated mental and physical health coupled with escalated distress levels. Minimal exercisers (≤ 0.5 h/day) showcased heightened life satisfaction in harder-hit areas. The impact of this research emanates from the evidence it presents in terms of mental health challenges and the implications it has on the need to prioritize certain populations in terms of resource allocation. It garnered significant media attention, with outlets like Yahoo News and Fast Company highlighting the health conditions under COVID-19 lockdown based on the findings from this research. Such media coverage underscores the potential real-world impact of the study, suggesting its potential influence on practice.

Evidence on Mental Health Symptoms During the COVID-19 Pandemic

We then sought to understand the existing frameworks and approaches in mental health research, which has three major endeavors: identification of symptoms among vulnerable populations, diagnosis of these symptoms, and treatment. Of these, our focus is on the first step, identification of symptoms, to first assess the prevalence of mental health symptoms among diverse populations around the world during the COVID-19 pandemic. This was a critical issue, as without a clear understanding of who is more mentally vulnerable and by what magnitude and dimensions, it is impossible to prioritize the allocation of mental health assistance efforts in times when resources are thin. In response, we embarked on a series of primary survey studies across 40 countries, including Bolivia, Iran, Pakistan, and Peru to assess the prevalence of key mental health symptoms, such as depression, anxiety, and insomnia, in various vulnerable populations.

Our studies, e.g., Zhang et al. (2020a), Jahanshahi, Dinani, Madavani, Li, and Zhang (2020), and Chen et al. (2022c), focused on providing evidence on the prevalence of mental health symptoms during the COVID-19 pandemic. The research revealed a high prevalence of mental health symptoms during the pandemic, including depression, anxiety, and distress, and benchmarked them with the prevalence in the same population prior to the pandemic.

Systematic Reviews and Meta-Analyses

As we progressed through 2021, the number of primary studies into mental health prevalence under the pandemic quickly grew. With this growing evidence base, we decided to conduct meta-analyses, aiming to synthesize the diverse findings from primary studies and offer a more comprehensive view of mental health during the pandemic. We initially started with a big project on mental health symptoms during COVID-19 across countries and regions, but quickly recognized it was too complex. Subsequently, we broke it down into more manageable and focused subprojects. By dividing the project based on regions and populations, we could effectively address the intricacies and nuances within different contexts. This approach of conducting separate analyses for each subproject enabled tailored

research methodologies, data collection, and analysis techniques that were most appropriate for the particular region or population under investigation. As a result, we conducted several thorough systematic reviews and meta-analyses on the topic of mental health symptoms during the COVID-19 pandemic in Africa (Chen et al., 2021a), Southeast Asia (Pappa et al., 2021), Eastern Europe (Zhang et al., 2021d), and Latin America (Zhang et al., 2022a). We also note that numerous studies present a 95% confidence interval (CI) for a mean estimate in their meta-analyses, a practice that can be misleading as noted by Chen, Di, Huang, and Zhang (2022a) and Serghiou and Goodman (2018). In contrast, we achieved a 95% prediction interval (PI) for the estimate (Chen et al., 2022a; Serghiou & Goodman, 2018). These studies helped consolidate evidence and provided stronger evidence on mental health symptoms during the pandemic across different populations and settings.

Meta-Analysis of Meta-Analyses

Finally, we conducted a meta-analysis of existing meta-analyses that focused on specific regions, populations, and mental health symptoms. This big-picture approach provided a broader perspective, allowing us to draw meaningful conclusions across regions and populations, such as Zhang and Chen (2021) covering all major regions and Chen, Zhang, Yin, and Yanez (2022b) covering developing countries. These meta-analyses enabled us to identify similarities and differences between regions and populations, identify research gaps, and highlight key factors that influenced the outcomes of the project.

In sum, these articles provide a good set of evidence on mental health symptoms across different populations during the COVID-19 pandemic and uncover various predictive factors for facilitating more targeted mental health support during such crises. We succeeded in publishing close to 40 papers in top-tier health journals, contributing to the understanding of mental health during COVID-19. This achievement was met with extensive citations and attention from around 400 media outlets in 30 countries, indicating the relevance and impact of our research.

A Comparative Reflection: Health/Medical Sciences vs. Management Research

Our journey from business scholarship into the world of health and medical sciences provided us with a unique perspective on the different expectations to publish across research fields. As we navigated this new terrain and engaged more and more with friends, editors, and reviewers from medical fields, we discovered significant differences in the research norms, expectations, and values that characterize these two research fields. At their core, both health science and business research are applied sciences. Yet the orientation in management scholarship leans toward theory and causality (or model identification), often overlooking or subjugating other real-world problems that can be studied through description and prediction. In the following sections, we reflect on these differences and the insights they offer for responsible research in the field of management.

Addressing Practical Problems

Our foray into health sciences research revealed a strong emphasis on addressing practical, real-world problems. One of the key concerns in our research was the issue of prevalence – understanding how widespread mental health symptoms were in various populations during the pandemic – and their predictors. This question does not seek to advance any particular theory, but the answers have substantial practical implications, because it provides relevant data to guide resource allocation, inform public health policies, and help practitioners on the ground.

In health research, specifically in the realm of mental health symptoms such as anxiety and depression, measurement scales are commonly utilized as a quick instrument to evaluate varying levels of severity. Unlike in management research where a continuous or ratio measurement is the norm, mental health screening often employs cutoff points to categorize symptoms into distinct levels such as mild, moderate, and severe to assist practitioners in further diagnosing and treating based on the severity of symptoms. This approach acknowledges that individuals with different levels of symptoms

necessitate different levels of priority and support, so that health researchers typically predict anxiety or depression as binary outcome variables.

In contrast, management research often prioritizes the development and testing of theories. While this undoubtedly holds significance, our experience suggests that there is a pressing need for management research to address practical problems, long acknowledged, such as the theories and practices gap (Van De Ven & Johnson, 2006), the theory and phenomenon gap (*Journal of Management Studies* Special Issue, 2023), the academic and practice gap, and the academic and everyday understanding gap (Ramoglou & McMullen, in press).

While the primary objective of science, including social science, is to *describe*, *explain*, and *predict*, management scholars largely focus on explanation, paying less attention to description and prediction, which can be useful for themselves for many real-world applications. Applied sciences build evidence to inform practice (i.e., scholars relied on randomized controlled trial results to determine whether to use the COVID-19 vaccine on various populations rather than theoretical predictions on which and how many vaccinations are better for a targeted population). Similarly, social sciences like economics and finance also seem to focus more on evidence to improve practical relevance and impact. Other applied sciences, such as engineering, health, and medicine, rely on theories established in the fields of physical and biological sciences but do not make theorizing their sole primary concern. Artificial intelligence (AI) systems, including machine learning algorithms, primarily revolve around prediction. Even though AIs are only predictive and cannot explain, they remain useful as one of the most vibrant and rapidly developing fields. How does management, as a branch of applied sciences, demarcate our boundaries in relation to basic sciences, which primarily aim to pursue theory?

Relevance vs. Interestingness and Novelty

Medical and health research places a strong emphasis on relevance, aiming to address practical problems and have a direct impact on patient care and well-being. In contrast, management scholars (tend to) emphasize interestingness and novelty (Davis, 1971). Such an increasing preoccupation with 'interesting' and 'counterintuitive' theories can lead to nonreplicable findings, fragmented theories, and irrelevance (Pillutla & Thau, 2013; Tsang, 2022). Pillutla and Thau (2013: 187) conclude that '[t]he focus on the interesting and novel reveals a profound misunderstanding of the scientific enterprise'. Tsang (2022) further argues that 'interestingness' has little scientific value. Organizational scholarship can be more effective as an applied science by realigning with 'primacy to the problem being solved over novel theory development' (Pillutla & Thau, 2013: 187). By prioritizing relevance and problem-solving, management research can align itself more closely with the goals of applied science to make meaningful contributions that address practical challenges faced by organizations and society.

Prioritizing Evidence Over Theory

While theoretical contributions are expected of almost every paper in top management journals, health sciences demonstrate a distinct approach, emphasizing establishing evidence rather than solely focusing on causal relationships among concepts. In our mental health research, empirical evidence was king. While theories on the prevalence of mental health symptoms existed, there was a pressing need for concrete, empirical data to guide actions during the crisis. Theorizing based on the findings of one paper, no matter how well the paper is done, is less efficacious than theorizing based on an array of evidence from different studies conducted by different authors. The accumulation of studies and papers also leads to replication studies and meta-analyses, which can provide a more robust base to guide both practice and theoretical development.

Based on our experience, we believe that there is a pressing need for management research to place greater emphasis on evidence, particularly in contexts where it can address significant problems or guide key actions. While theoretical frameworks are essential for advancing knowledge, incorporating robust empirical evidence can enhance the practical relevance of management research. By prioritizing evidence, researchers can contribute to solving real-world challenges and guide informed decision-making.

Usefulness vs. Rigor

The value of credibility is a foundational premise, universally acknowledged and meticulously adhered to across disciplines. Although ideal, it can be challenging to simultaneously achieve both rigor and relevance. This balance is particularly difficult when dealing with complex, real-world problems where practical implications might demand swift, applicable solutions. In such cases, achieving a high level of methodological rigor might slow down the research process, potentially reducing the timeliness and practical impact of the findings. The dichotomy of usefulness versus rigor presents a pivotal tension in academic research, which is dealt with in a more pragmatic manner in health sciences.

In the realm of health sciences, particularly during crises such as the COVID-19 pandemic, the emphasis often leans heavily toward usefulness and relevance. This emphasis prioritizes the immediate relevance of research findings, acknowledging that in urgent contexts, the speed and practical impact of research can supersede methodological rigor, which often takes time to develop. Such an approach is crucial in swiftly addressing pressing health issues, where delayed responses could have grave implications.

Conversely, the management field, as observed by many scholars, tends to not relax rigor and credibility at the expense of practical utility in any situation, a paradigm that can potentially undermine the field's impact on pressing, real-world issues. Recognizing and openly discussing these trade-offs and limitations between rigor and usefulness, akin to practices in health sciences, is vital for maintaining the relevance of research. This acknowledgment does not undermine the importance of methodological soundness but rather emphasizes the need for a balanced approach depending on the situation in accordance with the urgency and complexity of real-world needs. In essence, our reflection underscores the importance of adapting research approaches to context-specific needs.

Research Diversity and Comparability

To ensure different kinds of research can be evaluated against different norms and expectations while ensuring rigor, transparency, and comparability across studies, health research promotes various guidelines for designing and reporting on various types of research. Numerous standard research guides and reporting frameworks exist across medical disciplines. Here, we highlight several major guidelines pertinent to distinct types of research, which could potentially inform management research.

- Qualitative Research – SRQR (Standards for Reporting Qualitative Research) and COREQ (COnsolidated criteria for REporting Qualitative research): SRQR and COREQ provide a guide to enhance understanding and utilization of findings.
- Prognostic Studies – EQUATOR (Enhancing the QUAlity and Transparency Of Health Research) and TRIPOD (Transparent Reporting of a multivariable prediction model for Individual Prognosis Or Diagnosis): EQUATOR provides resources and guidelines to promote high standards in reporting and publication of health research studies. TRIPOD addresses the reporting of studies developing, validating, or updating a prediction model.
- Diagnostic – STARD (Standards for Reporting of Diagnostic Accuracy Studies): STARD aims to improve the accuracy and completeness of studies of diagnostic accuracy.
- Randomized Control Trials – CONSORT (Consolidated Standards of Reporting Trials): This is a set of guidelines designed to improve the design and reporting of randomized trials to aid their critical appraisal and interpretation.
- Interventional Trials – SPIRIT (Standard Protocol Items: Recommendations for Interventional Trials): SPIRIT provides a standard for the scientific, ethical, and administrative aspects of clinical trials.
- Observational Studies – STROBE (Strengthening the Reporting of Observational Studies in Epidemiology): STROBE provides guidelines for reporting observational studies to improve the transparency and robustness of research.

- Systematic Reviews – PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses): PRISMA provides an evidence-based set of items to report in a systematic review or meta-analysis. The PRISMA statement has several extensions: PRISMA-P (Preferred Reporting Items for Systematic review and Meta-Analysis Protocols), PRISMA-IPD (Individual Participant Data), PRISMA-NMA (Network Meta-Analysis), and PRISMA-ScR (Scoping Reviews), focusing on the unique aspects and requirements of different types of systematic reviews and meta-analyses.
- Evaluation Study – CHEERS (Consolidated Health Economic Evaluation Reporting Standards): CHEERS offers guidance on economic evaluations to improve their transparency, consistency, and accessibility.

These guidelines serve to enhance the design, reporting, and transparency of health research. They also ensure that individual studies can be appropriately evaluated according to their specific type, thus aiding in the critical appraisal and understanding of these studies to cultivate diverse bodies of research in health sciences. For instance, thanks to a more standardized approach, most studies in mental health utilize a few of the most accepted measurement tools. For instance, our meta-analysis (Chen et al., 2022) examined 341 empirical studies on mental health symptoms during the COVID-19 pandemic. The results revealed that the two most well-accepted measurements account for nearly 70% of the assessments for anxiety, depression, insomnia, and posttraumatic stress disorder (PTSD): Generalized Anxiety Disorder (GAD) (50.2%) and Depression Anxiety Stress Scale (DASS) (18.6%) for anxiety, Patient Health Questionnaire (PHQ) (49.4%) and DASS (22.0%) for depression, Insomnia Severity Index (ISI) (68.8%) and Pittsburgh Sleep Quality Index (PSQI) (20.3%) for insomnia, and PTSD Checklist (PCL) (54.6%) and Impact of Event Scale (IES) (36.4%) for PTSD. Utilizing established instruments and following standardized procedures fosters consistency and ensures that research findings are comparable, reliable, and replicable, and can be integrated into meta-analysis to inform practice. Embracing openness and transparency in reporting findings is essential for maintaining integrity and relevance (Schwab & Starbuck, 2017).

In contrast to the diverse guidelines prevalent in health research, the editorial guidelines of many management journals often appear more homogenous, giving the impression that a singular set of rules applies to all research. However, as the field of management continues to evolve, we may learn and adapt from these health research guidelines to develop standards and practices. Notably, some journals in management such as *Journal of Applied Psychology* have adopted PRISMA. *Management and Organization Review* was among the first to introduce the DART (data access, replication, transparency) approach (Lewin et al., 2016). Yet, the majority have not. We strongly encourage management scholars to develop more standardized expectations for various kinds of research. Embracing such standards can reduce biases, enhance comparability, and improve the overall quality and diversity of management research.

Emphasis on Timeliness

One of the striking differences we encountered in health sciences was the importance given to the timeliness of research. In the context of COVID-19, this became a race against time in health and medical research, where every day was counted, as journals vastly shortened their review time. Time to first decision, review period, and revise and resubmit (R&R) period are usually short for health-related journals. Time to first decision is typically only a few days with a high desk rejection ratio (our experience is more than 80%); however, the review period and R&R normally takes a few weeks, where editors and reviewers focus on whether the problem is important, and the evidence is good. For instance, *Lancet*, a top medical journal, gave a turnaround time of 24 hours to prioritize important COVID-related research during the pandemic.

This urgency contrasted with the typical pace of management research, where the journey from conceptualization to publication often spans several years. However, recognizing the need for timeliness, some management journals have started to change. For instance, *Management Science* recently

introduced a fast-track review process to expedite the publication of highly relevant and timely research. While the traditional timeline may be appropriate for some papers, our experience has made us question whether this pace serves the purpose of solving many real-world problems, especially in times of crisis. The introduction of such fast-track processes underscores the increasing recognition in the management field that relevant research cannot wait and needs timely research dissemination.

Diversity in Research Expectations

Health sciences research demonstrated a flexibility and diversity in research expectations that were refreshing. Our work on prevalence studies, for instance, did not require causal inference, endogeneity tests, or longitudinal designs. Instead, the focus was on the assessment and prediction of prevalence, prioritizing more economical research designs that can effectively address the research question at hand. This approach showcased a valuable departure from management, where economic research designs to best address a practical problem are rarely considered.

In management research, there is an increasing emphasis on 'rigorous' methodologies such as causal inference and endogeneity tests. While these approaches are valuable, an extreme emphasis on them can limit the diversity of questions asked, favoring explanation at the expense of descriptive and predictive research. While making theoretical contributions is significant, it is important to recognize that it is just one way of contributing to literature. Sometimes it may be premature to jump to developing theory when a phenomenon is new or previously neglected. It may be better to first focus on empirical evidence and sort out some significant relationships between key variables, such as in this study on superstitious decision-making (Tsang, 2004). Some journals, i.e., *Strategic Management Journal*, have begun to place more importance on evidence and replication studies. In response to growing concerns about the emphasis on novel theoretical contributions over empirical validation in management research, the *Journal of Management Scientific Reports* was established in 2023 with a mission focused on advancing management science through replication studies and research dedicated to theory testing and refinement, thereby addressing the imbalance between theory development and practical problem-solving in the field. Therefore, we encourage embracing diversity in terms of research methods and types of contributions. Our experience suggests that there is room for more diversity in research expectations in management, allowing for a broader range of questions and methodologies.

Encouraging Exploration, Description, and Pattern Recognition

The health sciences domain exhibited an openness to exploratory research and pattern identification. This openness allowed researchers to delve into uncharted territories, seeking patterns and relationships while acknowledging that not all findings may withstand replication. Indeed, the idea was that subsequent meta-analyses would help filter out idiosyncratic relationships, ensuring that only robust and replicable findings endure. For example, in several of our studies, we run regression of mental health symptoms on demographic variables to explore what predictors could be useful.

In contrast, management research often dismisses exploratory research as mere fishing expeditions. However, exploration is a significant source for abductive reasoning (Sætre & Van de Ven, 2021). Recently, *Academy of Management Discoveries* pivoted to publish empirical research driven by phenomena that existing theories of management and organizations fail to adequately predict or explain. Our experience suggests that there is value in fostering more exploratory research within the field of management (Hambrick, 2007), allowing for unexpected discoveries and opening new avenues of inquiry.

Democratization of Scholarship

One of the key insights from our journey was the relative democratization of scholarship in health sciences. The emphasis on clear writing over polished prose allowed for wider participation in scientific discourse. This feature was particularly beneficial for scholars from developing countries or non-English-speaking backgrounds, reducing the barriers to their contributions. Notably, we were

advised to adopt a more direct and succinct writing style, emphasizing the objectives, evidence, and results while minimizing theoretical frameworks. This shift in approach compelled us to streamline our communication, cutting to the core of our findings and providing concise, relevant evidence. This valuable experience broadened our understanding and appreciation of the different expectations and norms in other fields and enhanced our capacity to navigate and publish in other disciplines. While clear writing is essential in any scholarly field, our experience suggests that management research can benefit from a similar democratization by streamlining and simplifying writing requirements, focusing less on stylistic perfection and more on the clarity and substance of the evidence, as writing theoretical arguments normally requires a higher command of English.

Moreover, health sciences do not impose an arbitrary cutoff list of 'top-tier' or 'A' journals. Researchers are generally expected to publish their evidence in the best journal possible so that all evidence, if rigorously conducted based on the respective guidelines, can be published to allow accumulation of knowledge and to avoid potential omitting biases in meta-analyses.

In contrast, the management field places considerable importance on publications in a select list of prestigious journals. The influential University of Texas at Dallas list of 24 business journals has been mostly static over 30 years, leading to a stagnation that does not reflect the diversity of research, especially those that are emerging, interdisciplinary, or rapidly developing. The focus on a narrow set of journals can discourage innovative or exploratory research (Heckman & Moktan, 2020), as researchers may feel pressured to conform to the relatively homogeneous set of preferences and tastes of these few journals, inadvertently hindering the publication of more varied types of research and the accumulation of evidence.

These limitations underscore the need for a more inclusive and dynamic approach to recognize and value research contributions in the management field, akin to the more flexible approach observed in health sciences.

Research Teams

Effectively managing a research team and providing training to students are vital components in research. Unlike in management research, in which authorship is typically reserved for more substantial contributions, often excluding roles like research assistants, health research tends to adopt a more inclusive approach, offering co-authorship to all team members who contribute to the study in any manner. For instance, in our meta-analysis papers, students involved in article screening and data coding were granted co-authorship, a practice less common in management research. Offering co-authorship to each team member not only promotes a sense of pride and ownership over their contributions but also acknowledges their responsibilities, potentially mitigating the risk of misattribution. This recognition not only boosts motivation but encourages a collaborative and accountable mindset, as each member realizes the value they bring to the team.

The practice of granting co-authorship facilitates collaboration among scholars with diverse expertise, resources, and backgrounds. In health and medicine, global collaborations are more prevalent to enable researchers to tap into a wider range of perspectives, methodologies, and data sources, enriching the quality and applicability of their studies.

Limitations from Our Journey in Mental Health Research

In health research, there is a delicate balance between relevance and rigor that researchers must navigate. While it is important to generate findings that are applicable and have practical implications, maintaining methodological rigor is equally crucial to ensure the validity and reliability of the research outcomes.

However, it is worth noting that health and medical sciences constitute a much larger and more diverse tent than management, and specific disciplines and journals within health and medical sciences vary in their approaches. What we notice is the overall differences based on our experience of management scholars publishing dozens of papers in health and medical sciences. It is also important to acknowledge that our experience may anchor more upon survey-based research and meta-analysis,

which aligns more closely with organizational behavior (OB) research and less with organizational theory (OT) research.

Implications and Future Directions

Our journey from business scholarship into health and medical sciences research yielded significant experiential learning. These experiences have not only transformed our perspective on the role of business scholars but have also offered valuable insights into the broader implications for management research and the pursuit of responsible research.

Implications for Responsible Research

Our experiences highlighted the power and potential of responsible research. First, our experiences suggest it is possible for management researchers to do useful and potentially more relevant research to meaningfully fulfill our responsibility to leverage our skills and knowledge as scholars and to play a more significant role in doing work useful to the world.

Our journey illuminated the principles of responsible research in a concrete and actionable way. Responsible research, an increasingly important movement in academia, has often been characterized by lofty philosophical ideals, which frequently lack specific, tangible steps for their application, especially for junior scholars to jump in under the tremendous pressure for tenure and promotion.

Our research serves as an exemplar, illustrating the concrete actions we took in line with these principles. While navigating unfamiliar terrain, we ensured that our research met the different norms and expectations of journals in health and medical fields in terms of data collection, analysis, and interpretation, as well as the overall design and writing. Our experience underscores the importance of turning the principles of responsible research into actionable strategies. It also highlights the fact that responsible research is not a static, one-size-fits-all approach. Principle 3 among the seven RRBM principles acknowledges the pluralistic nature of inquiry (Co-founders of RRBM, 2017, 2020). This approach requires adaptability, creativity, and an unwavering commitment to address real-world problems.

Implications for Scholars

Here we share some of our learning with our fellow management scholars. First, we encourage everyone to embrace the spirit of responsible research. Our work should not only contribute to the academic body of knowledge but also strive to solve real-world problems, as this is a key reason why many of us chose to become academics in the first place.

Second, be ready to step out of your comfort zone. Our endeavor into mental health research was a challenging leap from our primary field of business scholarship. It required us to learn new expectations, understand unfamiliar literature, and navigate a different research culture. Yet, this leap allowed us to meaningfully contribute to solving real-world problems.

Third, do not be deterred by initial difficulties. We faced numerous challenges in our journey, but our determination and commitment to our goal saw us through. Challenges are often an opportunity for growth and learning.

Fourth, research is a collective effort. It thrives on collaboration and diversity. It is often crucial to seek partnerships with researchers who have done research across disciplines, countries, and cultural backgrounds. This collaboration not only enriches research but also helps us to better navigate how to publish interdisciplinary and bold research in various fields.

Lastly, writing well in English can be a barrier for many scholars, and our experience in mental health research made us realize the value of a more democratized scholarship, which could also serve to reduce barriers for researchers from non-English-speaking backgrounds.

Implications for Entering a New Field

It is undeniably challenging to venture outside our comfort zones. Entering a new field is daunting, as our knowledge and experience may limit our ability to make substantive contributions. Embarking on

a new field of study or research carries several important implications that can greatly impact potential success or failure. Through our own experience, we gained valuable insights that shed light on the best practices for navigating uncharted territory. These lessons can serve as guidance for others who seek to venture into a new field.

First, it is important to break a complex problem into manageable parts. We learned this approach in conducting meta-analyses in which we broke down an overall meta-analysis on mental health during the COVID-19 crisis into more manageable and focused subprojects to enable faster collection, analysis, and dissemination of evidence. By taking a similar approach, Abhijit Banerjee, Esther Duflo, and Michael Kremer, the three development economists who won the 2019 Nobel Prize in economic sciences, revolutionized the approach to alleviating global poverty by segmenting it into specific, actionable challenges by studying the impacts of targeted interventions on narrow aspects of poverty, such as the availability of textbooks in schools or the influence of subsidies on fertilizer use (Olken, 2020). By focusing on localized studies tailored to individual community needs, they ensured interventions were contextually relevant and could identify and scale up the most effective strategies for poverty alleviation. As such, we suggest management scholars break down complex problems into manageable pieces.

Second, take a step-by-step approach venturing into a new field, leveraging existing knowledge as a foundation and incorporating new insights. This incremental approach allows for an easier transition and enhances our understanding of the nuances in expectations and norms specific to the new field.

Third, immerse oneself in the process of doing something new, which will motivate us to move forward. Engaging with editors and reviewers in the health field enabled us to understand the specific expectations and requirements of this new domain. Through these interactions, we gained valuable insights and refined our research methodology to align with the conventions of the field.

Fourth, actively reach out to get insights from experts in a new field or people who have done cross-disciplinary research, as they are able to inform us on the differences along the way. Interacting and collaborating with scholars who have published both in your old field and your new field will prove invaluable in understanding the differences and nuances between the fields. Our experience highlights the advantage of multidisciplinary collaborations when exploring new fields like health sciences. Indeed, we are just saying we are standing on the shoulders of giants who have been there before[2], as their insights serve as valuable guidance for researchers interested in venturing into unfamiliar territory. By targeting grand societal challenges and real-world problems, management scholars have an opportunity to collaborate with professionals from diverse fields, enabling a more interdisciplinary approach.

Fifth, seize opportunities when they arise. Just as entrepreneurs recognize and act upon opportunities, researchers can embrace uncertainty and act. If we wait for the perfect moment, we might have to wait forever. Recognizing and acting upon opportunities with a learning-oriented approach allows for growth and innovation.

Ultimately, our journey into the medical field exemplifies the willingness to step beyond the boundaries of our comfort zone and embrace the challenges of a new domain. By actively seeking feedback, pivoting our approach along the way, and noticing and appreciating differences in norms and expectations, we show it is possible to not only contribute to other research fields but also grow as more capable researchers in bridging disciplinary gaps for better scholarship.

Our Future Research on Mental Health of Entrepreneurs, Executives, and Innovators

The journey we embarked upon, venturing into the realm of health research, was not a mere detour but a conscious decision to address pressing, real-world problems. Now we are actively working to bridge the gap between health and management research. Specifically, our next focus is on the mental health issues of entrepreneurs, executives, innovators, and the like. We also acknowledge the opportunity to tackle real-world management problems using the paradigms and approaches from health and medical research to make management research more responsible. We continue to promote and advocate for management research to be more responsible in various endeavors, including with this reflection piece.

Conclusion

As we reflect on our journey into mental health research during COVID-19, we are struck by the challenges, the learning, and the profound sense of purpose that this work brought us. While we started this journey as business scholars seeking to contribute during a global crisis, we came out of it with a transformed understanding of what scholarship could achieve in a somewhat parallel universe of a different publication system.

We share our experiential learning candidly for the wider academic community in management, as a field of applied science, with the hope that our story inspires others to embrace the potential of their research to contribute to the real world in the times to come.

Notes

1. Thanks to a reviewer's suggestion, we note that our motivation for publishing in health journals was driven by their different paradigms to address real-world issues and not by academic incentives. In fact, these publications are not recognized or rewarded by our respective business schools, which focus solely on their own business journal lists or specific journal rankings like ABDC/ABS.

2. We appreciate the help provided by management scholars who do interdisciplinary research such as Michael Frese, Zhaoli Song, and Lambert Li, as well as health and medical scholars such as Jose Aparecido, Sofia Pappa, Senhu Wang, Aldo Alvarez-Risco, Jaime Yáñez, Roger McIntyre, and Iuliia Pavlova.

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Stephen X. Zhang (stephen.x.zhang@gmail.com) is a professor of entrepreneurship at the University of Adelaide. His interests lie in studying how entrepreneurs and top management teams behave under uncertainties. He has worked previously at the University of Sydney, Catholic University of Chile, and National University of Singapore. Before embarking on his academic path, he gained practical experience as an entrepreneur and worked across various sectors, including engineering, management consultancy, market research, and innovation management.

Jiyao Chen (jiyao.chen@oregonstate.edu) received his PhD in Technology Management from Stevens Institute of Technology and is an associate professor at Oregon State University. His research interests primarily lie in technological and innovation management, new product development, and responsible research. Previously at Kellogg School of Management, he is an associate editor for the *Journal of Business Research* and serves on the editorial boards of the *Journal of Operations Management* and *Journal of Product Innovation Management*.