

When methods become gatekeepers: reflections on the methodological turn in Chinese psychology

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Abstract. In recent years, Chinese psychological research has undergone a rapid methodological turn under the influence of increasing mental health needs, changes in academic evaluation systems, and international scholarly norms. The growing use of longitudinal designs, experimental studies, and complex statistical models has, to some extent, responded to earlier problems such as low-quality cross-sectional questionnaire studies, formulaic mediation and moderation models, and overstated causal interpretations. However, the rapid rise of methodological expectations may also create new risks. This article discusses five potential concerns in the current methodological turn: the gap between the practical demand for advanced statistical methods and systematic methodological training, a research orientation that prioritizes methods over questions, the expansion of resource inequalities among researchers, insufficient timely responses to important issues and underrepresented populations, and inadequate scrutiny of AI-assisted analytical outputs. This article does not deny the value of best methodological practices for the development of psychological research. Rather, it calls for a more comprehensive understanding of their potential consequences while promoting methodological rigor. Methodological upgrading that proceeds too quickly without sufficient educational and institutional support may, paradoxically, weaken the scientific quality, openness, and inclusiveness of psychological research. High-quality psychological research should not be evaluated simply by model complexity, sample size, or the number of data waves, but by the alignment among research questions, theoretical development, research design, statistical methods, and interpretations of findings. Methodology should not become a new academic threshold or technical performance; instead, it should serve psychology's understanding of real-world problems. Therefore, this article argues against one-size-fits-all hierarchical evaluations of research methods and advocates for a more open, cautious, and inclusive methodological culture.

Keywords: research methodology, Chinese psychology, methodological gatekeeping, research quality

1. Introduction

With the rapid development of Chinese society, mental health has received unprecedented attention. Compared with previous decades, mental health is no longer viewed merely as a private concern at the individual level, but has increasingly become an important issue in public health, educational development, and social governance. This shift has also promoted the rapid growth and continuous development of psychological

research in China. Such development is reflected not only in the increasing specialization of research topics and subfields, but also in the substantial growth in the number of scholarly publications. A recent bibliometric analysis indicated that psychological research in China has generally been oriented toward empirical and quantitative approaches [1]. This tendency may be related to China's large population base, relatively favorable conditions for data collection, and a long-standing preference for scientific, quantitative, and measurable forms of evidence. Overall, Chinese psychology is responding rapidly to social needs and national policy priorities, while gradually extending toward applied domains such as mental health services, educational practice, and social governance.

However, the rapid increase in research output has also been accompanied by uneven research quality. In some areas, formulaic and template-based modes of knowledge production have become increasingly visible. For example, the same set of cross-sectional questionnaire data may be repeatedly divided, reorganized, and repackaged, with researchers producing multiple structurally similar articles by changing the independent variable, mediator, moderator, or outcome variable. This "building-block" style of research production may weaken the originality of research questions and reduce theoretical depth. In particular, after mediation, moderation, and combined mediation-moderation models became widely used, such studies appeared in large numbers within Chinese psychological research and, for a period of time, became a highly common publication format.

This phenomenon cannot be attributed solely to individual researchers' choices. It is also closely related to the current academic evaluation system. In a context where research outputs are closely linked to institutional assessment, promotion, scholarship evaluation, and graduation requirements, a form of "publicationism" has, to some extent, encouraged the pursuit of publication quantity. Compared with the originality of research questions, the depth of theoretical contribution, and the rigor of methodological design, the speed and likelihood of publication may sometimes be given higher priority. Under such pressure, the repeated production of low-quality cross-sectional studies not only increases the burden on editors and reviewers, but may also hinder the genuine advancement of psychological knowledge. When research designs cannot support causal claims, or when statistical models are overinterpreted, study findings may transmit inaccurate or even misleading information, thereby affecting subsequent research, practical application, and public understanding [2, 3].

In response to these problems, Chinese psychology journals have begun to make corresponding adjustments. For example, the *Journal of Psychological Science*, an important psychology journal in China, issued a statement indicating that, except in cases involving relatively novel variables or variable relationships, or exceptionally large sample sizes, it would no longer consider manuscripts that rely primarily on one-time cross-sectional survey data and use mediation or moderation analysis as the core evidence [4]. This statement can be regarded as an important signal of the methodological turn in Chinese psychology. It not only reflects journal editors' caution toward low-quality cross-sectional questionnaire studies, but also conveys, to some extent, the types of research characteristics that are increasingly valued in academic publishing: larger sample sizes, more novel variables, stronger research designs, and more cautious use of traditional mediation and moderation analyses.

Because publication is closely tied to researchers' graduation, evaluation, promotion, and career development, journal policies play an important role in shaping academic norms. Editorial preferences regarding research design and statistical methods do not merely affect the publication prospects of individual manuscripts; they may also influence how researchers select research questions, design studies, and allocate limited research resources. Therefore, such statements should not be understood merely as technical adjustments to submission requirements. Rather, they may guide the broader mode of knowledge production in

Chinese psychology. While they remind researchers to avoid mechanical reliance on cross-sectional questionnaire data and formulaic mediation or moderation models, they also raise an important question for further discussion: when journals promote methodological upgrading through explicit editorial policies, how can the field improve research quality while also preserving academic inclusiveness?

2. Potential risks behind methodological enthusiasm

In recent years, methodological expectations in Chinese psychological research have risen rapidly. This trend is reflected not only in stricter requirements for graduate theses and dissertations, where longitudinal, experimental, or mixed-methods designs are increasingly expected, but also in the growing use of advanced statistical models in journal articles. Methods such as the random-intercept cross-lagged panel model, latent profile analysis, machine learning, and complex mediation-moderation models have appeared increasingly often in psychological research [5-7]. From a positive perspective, this shift has moved psychological research away from simple correlational analyses and cross-sectional questionnaire studies toward more complex, rigorous designs that are better equipped to address questions of causal inference. However, alongside this rapid methodological upgrading, several potential risks deserve careful attention.

First, there appears to be a clear gap between methodological training and methodological application. Current statistics textbooks and course systems in Chinese psychology programs still tend to focus primarily on basic statistical methods, with some coverage of structural equation modeling [8]. However, more complex approaches, such as the random-intercept cross-lagged panel model, dynamic structural equation modeling, longitudinal network analysis, Bayesian modeling, machine learning, and causal inference, remain relatively underrepresented in systematic training. Under the pressure of graduation requirements, journal submission, and promotion evaluation, many graduate students and early-career researchers have to learn advanced statistical methods through short-term workshops, online courses, social media tutorials, or self-study. Yet this learning process often lacks transparency and quality control. The quality of different training resources varies substantially, and some materials may provide only software procedures without adequately explaining model assumptions, data requirements, boundaries of application, and principles of interpretation. More importantly, some supervisors and reviewers may not themselves have fully mastered these rapidly emerging methods, making it difficult for them to identify key errors in the use of complex models.

This gap may lead to methodological applications that appear advanced but are not necessarily rigorous. For example, the random-intercept cross-lagged panel model is commonly used to separate stable between-person differences from within-person dynamic change, thereby allowing researchers to examine temporal associations among variables more precisely [5]. However, this model places relatively demanding requirements on the data structure. In general, at least three waves of longitudinal data are needed to reasonably estimate random intercepts and lagged paths. If a study contains only two waves of data but still claims to have used a random-intercept cross-lagged panel model, this may constitute a clear methodological problem [9]. If such problems are not detected by authors, supervisors, reviewers, or editors, they may reveal a technical blind spot in the broader quality-control chain when it faces complex statistical methods. They may also generate further negative consequences. Other researchers, especially graduate students who are still learning these methods, may mistakenly believe that two-wave data can routinely be used for random-intercept cross-lagged panel modeling, thereby reproducing and spreading incorrect methodological practices.

Second, methodological upgrading may unintentionally reinforce a research orientation that is method-centered rather than question-centered. Psychological research should begin with important real-world problems, theoretical questions, or clinical and social needs. The role of method is to help researchers answer

questions more appropriately, not to replace the questions themselves [10]. However, when academic evaluation and journal publication increasingly emphasize complex models, longitudinal data, and advanced statistics, researchers may gradually shift their attention from "Why is this question important?" to "Is this method advanced enough?" or "Will this model be more publishable?" In such an academic climate, methods may change from tools that serve research questions into symbols used to display technical sophistication. Researchers may no longer begin by considering the theoretical meaning, cultural context, or practical value of the phenomenon itself, but may instead prioritize how to package existing data into more complex models. This shift may create a form of performative methodological use, in which models become increasingly complex while the underlying problem consciousness becomes increasingly weak.

Third, rapidly rising methodological thresholds may further expand inequality among researchers. High-quality longitudinal research, experimental designs, and complex data analyses often require substantial resources, including stable research teams, long-term participant follow-up, funding support, data management capacity, statistical consultation, and publication experience. For senior scholars who already have access to substantial academic resources, these requirements may be challenging but relatively achievable. For graduate students, early-career faculty members, researchers in regional universities, or those working in resource-limited institutions, however, data collection and methodological training may themselves become difficult barriers to overcome. When journals increasingly favor large samples, multi-wave longitudinal data, experimental designs, or complex statistical models, academic publishing may unintentionally become more favorable to those with greater resources. In the long run, academic competition may increasingly resemble a mechanism of resource accumulation: those who already possess resources are more likely to produce high-impact publications, while emerging scholars with limited resources may remain trapped by insufficient data, inadequate training, and publication barriers.

Fourth, excessive emphasis on particular research designs may prevent some important issues from being presented in a timely manner. Although longitudinal and experimental studies have clear advantages for causal inference, not every psychological question requires such designs in order to make a meaningful contribution. With a sound theoretical foundation and clearly defined inferential boundaries, cross-sectional studies can still provide valuable information, especially for describing current conditions, identifying group differences, generating theoretical hypotheses, and exploring emerging phenomena [2]. For populations that are difficult to recruit or relatively marginalized, such as sexual minority groups, patients with rare diseases, special occupational groups, or individuals affected by social crises, cross-sectional research may sometimes be a more realistic and ethically feasible option. Similarly, in response to sudden public events or rapidly changing social phenomena, cross-sectional surveys can document psychological states and social needs in a timely manner, providing foundational information for subsequent research and policy responses. If the academic community rigidly devalues cross-sectional research, some socially meaningful and urgent research questions may struggle to enter scholarly discussion.

Fifth, the development of artificial intelligence may further increase the hidden risks of misusing complex methods. With the rapid advancement of AI tools, researchers can more easily obtain statistical code, model syntax, data analysis suggestions, and interpretations of results. To some extent, this lowers the technical barrier to advanced statistical methods and supports researchers in learning and applying complex models. However, AI-generated code and explanations are not necessarily correct [11]. When researchers who lack sufficient methodological training rely on AI to conduct complex statistical analyses under publication pressure, and when they cannot judge whether a model is appropriate for their data, whether the code is correct, or whether the interpretation exceeds what the design can support, errors may enter the research production process in more hidden ways. Unlike traditional software operation errors, AI-assisted

methodological misuse may be more difficult for outsiders to detect because the process of code generation, revision, and decision-making is often not transparent. Therefore, as AI rapidly enters research writing and data analysis workflows, psychology needs to pay greater attention to methodological education, code transparency, analytic reproducibility, and reviewers' methodological competence.

Therefore, the rising methodological standards in Chinese psychology are both positive and necessary. They respond to previous problems such as low-quality cross-sectional questionnaire studies, formulaic mediation and moderation models, and exaggerated causal interpretations. They also encourage researchers to place greater emphasis on research design and statistical inference. However, methodological reform should not be reduced to the pursuit of particular methods or the wholesale rejection of particular research designs. Genuine rigor should not be judged merely by whether the model name sounds advanced, whether the data contain enough waves, or whether the sample size is sufficiently large. Rather, it should be reflected in the fit among research questions, theoretical foundations, research designs, statistical methods, and interpretations of findings. Indeed, some intellectually compelling research questions can even be explored through single-case or single-sample studies [12]. Although such studies have inherent limitations in statistical inference and external validity, they may still offer considerable epistemic value. This is particularly true in psychology, a discipline that should remain attentive to individual experience, subjective meaning, and psychological processes embedded in specific contexts. Therefore, single-case, single-sample, or small-sample exploratory studies should not be dismissed as inherently low-quality; rather, they should be evaluated in relation to their research aims, theoretical contribution, depth of evidence, and clearly stated inferential boundaries. Methodology should be a tool for helping psychology understand reality, respond to society, and develop theory; it should not become a new publication threshold, a form of technical performance, or a mechanism of academic exclusion.

3. Conclusion

Overall, this article does not seek to reject methodological progress in psychology. Rather, it aims to remind the academic community that the goal of methodological reform should not be merely to eliminate older methods, pursue newer models, or raise the threshold for publication. Instead, it should help researchers answer psychological questions more accurately, transparently, and responsibly. For Chinese psychology, which is developing rapidly, the more important task ahead is not to establish a new hierarchy of methods, but to cultivate an academic culture that values research quality while remaining open and inclusive. Methodology should serve research questions rather than obscure them; it should promote understanding rather than create exclusion. Only when researchers can maintain a balance between rigor and openness can Chinese psychology continue to upgrade its methods while preserving sensitivity to real-world contexts, individual experiences, and social needs.

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