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This second issue of Volume 5 of *Applied Psychology Around the World* is dedicated to a series of papers around the broad topic of **Psychology in China: State of the Art**.

Unfortunately, we had to postpone our 2022 ICAP which was to take place in Beijing last year, and during the last Board of Directors meeting, we had to opt, in agreement with the Chinese Psychological Society, CPS, and our Chinese colleagues, for the cancelation of the ICAP in Beijing, due to ongoing uncertainty, and especially due to Covid19 travel restrictions. I wish to take advantage of this Editorial to strongly thank all our Chinese colleagues who have devoted so much of their time and energy to make the 30th ICAP a success, and in particular Kan Zhang, who initially prepared the bid for China and Richu Wang who has been extremely helpful during the whole process.

This issue, as it now became the new tradition, is introduced by a *Message from the President* of IAAP, Lori Foster, followed by a first series of 15 articles.

In the first series of papers, the first article is a brief introduction to the State of the Art of Psychology advances in China today; this introduction is presented by Xianghong Sun, who is the current Secretary General of Chinese Psychological Society and the Deputy Director of the Institute of Psychology, Chinese Academy of Sciences and Richu Wang, who is the Executive Editor of *PsyChJournal*, the first China-based English psychology journal, co-published by the Institute of Psychology, Chinese Academy of Sciences and Wiley.

The second article is entitled *A brief review of applied psychology in China*, by Richu Wang, Buxin Han and Kan Zhang. It is a paper which was initially published in the Psychology Chinese Journal, *PsyChJournal*, in early 2022, but the authors obtained permission to include it in this special issue.

These first two articles are followed by a series of 15 short papers presenting the main topics psychology focusses on in China today; they, when possible, match our Divisions’ themes, but they are based on the Divisions of the Chinese Psychological Society, CPS.

As recommended for any United Nations’ meeting, we try to include reports done by some of IAAP’s Students and Early Career Psychologists in most of our issues. Therefore, in this specific issue, we have 6 papers related to China or prepared by Chinese students studying in NY, USA. Once again, I wish to thank Judy Kuriansky for making this possible and for raising the young generation’s understanding of how Psychologists and Psychology can contribute to the Sustainable Development Goals at the UN as well as to so many important domains.

Now, I hope that you will enjoy reading this second issue of Volume 5!
Agenda 2030 is defined by 17 Sustainable Development Goals (SDGs) meant to transform our world by the year 2030 through an emphasis on five P’s: People, Planet, Prosperity, Peace, and Partnerships (United Nations General Assembly, 2015). As I have argued elsewhere, turning these goals into a reality requires attention to and from a sixth P: Psychology (Foster, 2023). People are at the heart of Agenda 2030. A scientific understanding of people is needed to build a better future for all.

As I sit down to write this reflection, I do so in great anticipation of what promises to be an exciting issue of *Applied Psychology Around the World* (APAW), covering psychology in China. I have fond memories of time spent in Beijing nearly nine years ago with Chinese colleagues from the Professional Qualification Authority (PQA) of the Ministry of Transport of the People’s Republic of China (Gloss & Foster, 2015). Now, an earlier version of me might have wondered: Just what in the world could applied psychology possibly offer in such a setting? Today, I know the answer: research, theory, methods, and insights with the potential to affect billions of people.

Take a moment to envision a job in the transportation sector. What comes to mind? A bus driver? An engineer? Or perhaps you thought of something altogether different. The reality is, there are many workers in the transportation industry responsible for a wide range of functions. Their skills, productivity, and wellbeing affect the safety and security of a vast number of passengers, drivers, pedestrians, and others, not to mention the economic development of the region at large. One of the many ways in which applied psychology can contribute is to use our methods of work analysis to understand the skills requirements of these occupations. This can inform the establishment of professional qualification standards, the development of relevant assessments, and skills development programs designed to improve the fit between transportation industry workers and their jobs. Accordingly, China’s PQA has leveraged applied psychology, recruiting and hiring psychologists with expertise in testing and research methods, for example. I learned a lot from the wonderful Chinese colleagues I met during my collaborations with the PQA. I look forward to gaining additional insights from this issue of APAW, regarding the development and use of applied psychology in other Chinese contexts.

One of China’s neighbors has also been at the forefront of my mind recently. Last month, I had the pleasure of representing the International Association of Applied Psychology (IAAP) at the 32nd Annual Convention of the National Academy of Psychology (NAOP) in India. This convention was hosted by Ahmedabad University, and its theme was “Building a Resilient and Responsible World: Emerging Trends in Psychology.” As the conference organizers explain, “The concern towards building a resilient and
The Sixth P cont.

responsible world is amplified as human societies worldwide are confronted by a pandemic, conflict, and climate change, which have economic, social, and psychological consequences that challenge the sustainable development goals (SDGs) adopted by the United Nations. These challenges require profound behavior changes for adaptation and mitigation. The convention covered a wide range of topics including but not limited to gender, diversity, physical and mental health, poverty, climate change, sports psychology, terrorism and peacebuilding, gerontology, traffic psychology and road safety, entrepreneurship, and other workplace issues.

My own talk at the NAOP convention centered on the notion of Macropsychology. Back when I was a university student enrolling in an economics class for my minor, I had a choice: microeconomics or macroeconomics. In my psychology classes, there was no such distinction. Everything was micro, with most of the concepts I studied focusing on individuals and groups, and sometimes organizations. Considering the SDGs and what is at stake for all of us, the time has come to expand psychology’s scope to include more macro level thinking. MacLachlan (2014) defines macropsychology as “the application of psychology to factors that influence the settings and conditions of our lives” (p. 851). MachLachlan and McVeigh offer examples of what this looks like in their 2022 volume titled, “Macropsychology: A Population Science for Sustainable Development Goals.” This book includes chapters offering a macropsychology perspective on mental health, decent work, and inclusive and sustainable urbanization, to name a few examples.

While in India, I also had an opportunity to give a public lecture. One of my favorite parts of that lecture happened when I asked the audience to name their favorite SDG. As I waited for the answers, two things came to mind. First, I reflected on a statement made by the NAOP, suggesting that the challenges articulated by the SDGs “require profound behavior changes for adaptation and mitigation.” Second, as I watched attendees’ answers to my question populate a word cloud emerging in real time, I was reminded of the close and meaningful alignment between the UN’s 17 SDGs and IAAP’s 18 Divisions. Some of the linkages are obvious. SDG 3 focuses on Good Health and Wellbeing, while IAAP’s Division 8 pertains to Health Psychology. SDG 4 (Quality Education) aligns with IAAP’s Division 5 (Educational, Instructional, and School Psychology). SDG 8 (Decent Work) relates to IAAP’s Division 1 (Work and Organizational Psychology). And various SDGs related to the natural environment (e.g., SDG 13, Climate Action) align with IAAP’s Division 4 (Environmental Psychology). These are just a few examples of the top-level connections that exist. In other cases, you have to go one level deeper and look at the SDG targets – there are 169 of them in all. For instance, did you know that Target 3.6 states: “By 2020, halve the number of global deaths and injuries from road traffic accidents” (United Nations General Assembly, 2015, p. 16)? With its focus on the what, why, and how of road safety, IAAP’s Division 13 (Traffic and Transportation Psychology) has a great deal to offer decision makers interested in this target.

Of course, the SDGs are inextricably linked to one another, with progress on one goal or target often affecting progress on others, for better or worse. This suggests the need for solutions that incorporate expertise and insights from various IAAP divisions. IAAP has seen good examples of cross divisional collaboration over the years, and opportunities abound to strengthen these connections going forward. There are many ways to do this. For example, divisions can jointly deliver papers, webinars, and other presentations addressing matters of mutual relevance. Another way members can help connect our areas of expertise is to join more than one division. If you are an IAAP member, your membership includes the chance to affiliate with up to four divisions. Why not join four? It doesn’t cost anything extra, and it gives you a chance to expand your perspective. If you’re not an IAAP member, join us! As the oldest international association of psychologists in the world, we welcome new members from across the globe. You can learn about each division in an excellent chapter...
written by Michael Knowles (2020) titled, “IAAP’s Divisions: The Course of Their Development.” This chapter is part of a Centennial History book, published a few years ago on the occasion of IAAP’s 100th birthday.

In closing, sustainable development requires contributions from the range of applied psychology specialties. Just as the SDGs are intertwined, so too are the elements of psychology needed to achieve them. And just as the SDGs toggle between more macro and micro level aims, so too must psychology. While psychology’s focus on individual attitudes, decision making, and behavior will remain as important as ever, there is an opportunity to expand and “level up” so to speak (Shoss & Foster, 2022). Macropsychology offers each of us a chance to consider how our own teaching, research, and/or practice connect to broader aims.

References


Introducing the Special issue of “Applied Psychology in China”

Xianghong Sun and Richu Wang

Since the first psychology laboratory at Peking University, which was established in 1917, as the cornerstone of Psychology in China, psychology has been an effective and influential discipline for Chinese academia, applying its findings to various other fields, such as education, clinical counseling, business management, public administration, commerce, journalism, and so on. By using psychological techniques, methods, and theories in those fields, the practice of psychology has been more and more beneficial to people in China.

Correspondingly, the development of applied psychology has been highly valued. As a matter of fact, the State Education Commission of the PRC first added the major of Industrial Psychology to the original Psychology major in 1987, which was the predecessor of applied psychology in China. Afterwards, the major was changed from industrial psychology to applied psychology in 1993, and Applied Psychology emerged as an independent discipline in China since then.

During the past 30 years, applied psychology had made some significant progress and accomplishments in China. In terms of discipline development, the number of colleges and universities that can provide undergraduate education in psychology or applied psychology has increased from the initial 45 in 2000 to 187 in 2007, and as of 2020, there are 334 colleges and universities that have bachelor’s programs, 114 institutes that have master’s program and 24 institutes that have doctoral programs in psychology or applied psychology. In terms of scientific research, popular topics have gradually shifted from a single domain to a multi-domain convergence, and research methods in applied psychology have increasingly involved advanced technologies which were developed by neuroscience and computer science. The studies of engineering psychology have emerged constantly, and many universities and research institutes have set up engineering psychology laboratories to meet the needs of teaching, scientific research, and application.

In this special issue of Applied Psychology Around the World (APAW), we introduce the present situation of applied psychology in China. China has made significant progress in basic research in the field of psychology. In the past five years, Chinese authors produced the second largest volume of research articles in the world. The rapid pace of social and economic development also urges the application of psychological science to serve people and society. There exist wide translation and application of basic research. For example, the research of developmental psychology in China has moved from typical developmental issues (e.g., cognitive development, language development, etc.) to multi-disciplinary integration, such as theories and techniques of developmental psychology integrated into the fields of education.
and mental health, which have begun to focus on psychological disorders that may arise in the course of development (e.g., attention deficit disorder, dyslexia, learning disabilities, Alzheimer’s disease, etc.). The progress in some areas that are most relevant to the well-being and livelihood of people and society, such as psychological health, social psychology, adolescent development psychology, elderly psychology, engineering psychology, artificial intelligence, and so on, has been shared in this special issue.

In this issue, we also introduce the work on neuroimaging that may be considered as basic research but may have important roles in terms of applications as well. The Chinese government announced the establishment of the National Bureau of Big Data and Information in the most recent National Congress. In the field of psychological research, national-wide research programs on databases of psychology and neuroscience have been undertaken during the past 20 years. For example, the Institute of Psychology, from the Chinese Academy of Sciences, has published the first national survey on Mental Health in 2008, and the second survey in 2020. The latest national survey covered more than 200,000 people aged from 18 to 65. A joint force of researchers from multiple universities and institutes funded a publicly available brain imaging database, which has collected a large number of varieties of brain imaging data through different projects.

China is a country with a large population; therefore, we have a spontaneous need for applied psychology. In recent years, applied psychology in China has made progress in various fields and research directions; covering interdisciplinary research between various fields is also becoming more abundant. The development of the discipline of applied psychology and its application practices cannot be separated from academic exchanges and cooperation. It is hoped that the publication of this issue of APAW can help peers from other countries understand the current situation of applied psychology in China, increase international exchanges, and that jointly we will promote the development of the discipline.

In the end, we would like to use this opportunity to express our gratitude to Professor Christine Roland-Lévy and APAW which welcomed the idea of briefly introducing applied psychology in China. The idea of compiling a special issue to provide an overview of applied psychology in China was discussed during the preparation for the 30th International Congress of Psychology. Although the Congress was unfortunately canceled after rigorous consideration and discussion between IAAP and the Chinese Psychological Society, we are still enthusiastic about bringing China psychology to the world. Last but not the least, we both wish to express our special thanks to the colleagues who kindly accepted our invitation to contribute with an article to the present issue and supported turning it into reality.

Biography of the authors
Professor Xianghong Sun is the Secretary General of Chinese Psychological Society and the Deputy Director of the Institute of Psychology, Chinese Academy of Sciences. She is an EC member of Asia Pacific Psychological Alliance and a council member of Pan-Pacific Committee of Ergonomics. Professor is an engineering psychologist whose interests include mental workload and situation awareness, human factors in interface design, driving safety and military personnel selection.

Dr. Richu Wang is the Executive Editor of PsyCh Journal, the first China-based English psychology journal, co-published by the Institute of Psychology, Chinese Academy of Sciences and Wiley. Dr. Wang is a Member-at-Large of IAAP. She served as the main contact person of the 30th ICAP. Dr Wang is a community psychologist and has been working with Chinese government agencies and NGOs such as UNICEF in psychosocial support projects for children and adolescents in adversary situations.
A brief review of applied psychology in China

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Abstract
Psychology in China has a long past, but a rather short history. Modern psychology was introduced to China in the early 20th century, soon, psychology as a scientific discipline was established when the teaching, research, and academic exchanges began. Specifically, applied psychology was established until the last decade of the 20th century; however, the past 30 years have witnessed the fast growth of applied psychology in China. In this article, we briefly introduce the history of psychology in China, its establishment as a discipline and a profession, and present some applications of psychology in the domains of public mental health as well as in educational and organizational settings.

KEYWORDS
applied psychology, history, mental health, psychology in China

A BRIEF HISTORY OF PSYCHOLOGY IN CHINA

The Chinese culture has profound connections with psychological thinking, and it is rooted in its ancient philosophies such as Confucianism, Taoism, and Buddhism practices throughout at least 3000 years of recorded history. Modern psychology in China, however, was inspired by German psychology in the late 19th century whereas the Chinese scientific community began to form when Western knowledge systems were extensively introduced to China (Han & Zhang, 2007).

The first Chinese book in psychology was translated from the English version of Joseph Haven’s “Mental Philosophy: Including the Intellect, Sensibilities and Will” (Xin Ling Xue, 心灵学) by a Chinese pastor, Yongjing Yan (1838–1898), in 1889 whereas Japanese scholar Nishi Amane used Xin Li Xue (心理学) (Xin Li Xue) as the title of his translation of the same book by Joseph Haven from German (W. Yang & Ye, 2014). This book and other pioneering psychological work were introduced to China and endorsed by Youwei Kang and his student Qichao Liang, two of the leading Chinese scholars at that time. Therefore, Xin Li Xue became the standard Chinese translation of psychology and was recognized by Chinese scholars through their introduction, promotion, and application (Wang, 1993).

Psychology as a discipline was established in China around the 1920s when several milestones were achieved at that time. The first psychology laboratory was established in Peking University in 1917, the first psychology department was founded in Nanjing Normal College in 1920, the Chinese Psychological Association (predecessor of the Chinese Psychological Society) was established in 1921, and the first national-level research institute, the Institute of Psychology, Academia Sinica (predecessor of the Institute of Psychology, Chinese Academy of Sciences [IPCAS]) was founded in 1929 (Han & Zhang, 2007; Wang, 1993). Schools of psychology such as structuralism, behaviorism, Gestalt psychology, and psychoanalysis were introduced to China, and Chinese psychologists began their own research. Before 1949, degree programs of psychology were offered in more than 20 universities nationwide; the teaching and research were mainly influenced by American psychology traditions (Chinese Psychological Society, 2021).

Soon after the founding of the People’s Republic of China, the IPCAS was reestablished in 1951, and several psychology departments and laboratories were founded in universities in the same period of time. After being falsely accused of being pseudo-science during the Cultural Revolution, psychology resumed its status as a scientific discipline in the 1970s and reestablished diplomatic education and scientific research in 1978. Toward the end of the 20th century, there were 20 psychology departments in the universities across China (Han & Zhang, 2007).

PSYCHOLOGY AS A DISCIPLINE IN CHINA

The term discipline originates from the Latin word discipulus, which means pupil, student, and follower (Turner, 2006). The use of the term in relation to areas of teaching and scientific inquiry occurred from the mid-17th century and onward. By this origin, formal education at universities or colleges is
fundamental to the establishment of a discipline. There are other characteristics for a subject to be recognized as a discipline, such as having a particular object of research, concepts and theories, professional associations to connect researchers and institutes, and publication or other means to communicate knowledge (Hollingsworth, 1986).

Psychology is taught at both undergraduate and postgraduate levels in China. In the 1980s, after the Cultural Revolution, there were only five universities that had psychology departments. In accordance with the rapid growth of graduate education in China, applied psychology has been launched as an independent degree program since 1993. The total number of universities that provided degree programs in psychology and applied psychology increased to 45 by Year 2000, and to 187 by 2007 (Han & Zhang, 2007). In 2020, there were 1270 universities offering bachelor’s degrees (Ministry of Education of China, 2021); among them, 334 universities had undergraduate programs in psychology or/and applied psychology (China Education online, https://gaokao.eol.cn/). Among 827 universities and institutes that offer postgraduate programs (Ministry of Education of China, 2021), 114 had master programs in psychology (psychology, mental health education), and 30 universities had doctoral-level programs in psychology in 2020 (China Education online, https://kaoyan.eol.cn/).

Established in 1921, the Chinese Psychological Society (CPS) is one of the earliest national academic organizations in China, and has been a member of the China Association for Science and Technology and the national representative member of the International Union of Psychological Science (IUPsyS) since the 1980s. CPS currently has 36 specialist divisions and 12 committees of special task forces, in cooperation with 31 provincial psychological societies across the country. The CPS National Convention of Psychology is held annually with around 2000 attendees, and is the largest forum for academic communication in psychology. CPS joined the IUPsyS in 1980, and the International Association of Applied Psychology in 1984. There are two other national associations of psychology in China. The Chinese Association of Social Psychology was founded in 1982, with 12 specialty divisions and 21 provincial branches. The medical application-oriented Chinese Association for Mental Health (CAMH) was founded in 1979 and is currently affiliated with Beijing AnDing Hospital. There are 18 specialty divisions, and CAMH also has three vocational branches.

Seventeen psychological journals are published in China: 13 in Chinese and 4 in English. *Acta Psychologica Sinica*, the flagship journal of CPS and copublished by CPS and the IPCAS, was launched in 1956. *PsyCh Journal*, copublished by the IPCAS and John Wiley & Sons, Inc., was launched in 2012 and is the first China-based international journal in psychology.

A peak achievement in terms of international academic communication within China was the 28th International Congress of Psychology, held in Beijing on August 8–13, 2004, hosted by CPS under the auspices of IUPsyS. It was the first ever to be held in an Asian developing country, and it attracted more than 6000 psychologists from 78 countries around the world. CAMH and CPS, jointly in cooperation with Peking University (Department of Psychology), held the 5th World Congress of Psychotherapy in Beijing in October 2008. In addition to that, CPS will host the 30th International Congress of Applied Psychology in Beijing, July 25–28, 2023.

**ETHICAL STANDARDS IN PSYCHOLOGICAL PRACTICE AND RESEARCH**

CPS issued its first ethical codes for psychological assessment in 1993 (Chinese Psychological Society, 1993). As the demand for mental health service providers keeps increasing, Divisions of Clinical Psychology and Counseling of CPS are working together to develop ethical codes for Chinese clinical psychologists and to build up a system of registration and regulation for psychological service providers. CPS published the first edition of “Registration standards for clinical and counseling institutions and professionals” and “Ethics Standards for Clinical Psychology and Counseling Psychology Professionals” (“CPS Ethics Standards”) in 2007 (Chinese Psychological Society, 2007a, 2007b), and revised the CPS Ethics Standards in 2018 (Chinese Psychological Society, 2018a, 2018b).

CPS Ethics Standards (Chinese Psychological Society, 2018b, page 1314) forwards five general principles that registered psychologists should follow:

**Beneficence:** Providing expertise and skilled services, psychologists should aim at benefiting clients, protecting their rights, providing them with appropriate help, and avoiding any possible harm.

**Respect:** Psychologists should respect every person who is seeking help, as well as his or her privacy, confidentiality, and voluntariness.

**Justice:** Psychologists should handle all the work and treat all the people concerned with fairness and impartiality. Psychologists should remain cautious and careful to avoid any inappropriate behavior caused by prejudice, incompetence, and technological limitations.

**Integrity:** Psychologists should be honest at work and keep credibility and genuineness while doing clinical implications, research, publications, teaching, and publicity.

**CPS Ethics Standards also set up regulations ruling, respectively, professionalism, consenting, privacy and confidentiality, competence and responsibilities, psychological testing and assessments, teaching tutorial and supervising, research and publication, virtual and telephone counseling, media communication and cooperation, and various clinical situations. These**
regulations can be used as ethical codes for organizations and pundits of clinical and counseling psychology as well as ground rules for dealing with ethical conflicts. Compared with the first edition, the second version includes more content, especially the ethical rules for virtual professional work and public media communication and cooperation, regarding the increasing acknowledgements and needs for psychological services in China.

PSYCHOLOGY AS A HEALTH-CARE PROFESSION IN CHINA

A recent epidemiologic study (Y. Huang et al., 2019) indicated that the 12-month prevalence of any mental disorders (excluding dementia) was 9.3%, and lifetime prevalence was 16.6%. Anxiety disorders are the most common classes of disorders, followed by affect disorders. Significant progress has been made during the past decade. However, there are only 24 professionals who can provide mental health services for every 1 million people in China (X. Chen, 2018). After almost three decades from its first proposal (J. Liu et al., 2011), the Mental Health Law of China came into effect on May 1, 2013 (H.-Y. Huang, 2018). Psychological services have been included in many national and provincial regulations, and two policy initiatives, Proposal on Strengthening Psychological Health Services and Pilot Plan on Constructing a Social Psychological Services System, were issued in 2017 and 2018, respectively, by the Chinese government (H.-Y. Huang, 2018).

In 2002, the China Ministry of Labor and Social Security launched the certification for psychological counselors, as a part of the National Vocational Qualifications (H.-Y. Huang, 2018). Before that, psychotherapy was not an independent profession but provided by psychiatrists and clinical psychologists who worked mainly in hospitals and universities (J. Liu et al., 2011). The new certification was given to anyone who fulfilled the basic requirement, took the training, and passed a national examination. It enables private psychotherapy practice and psychological counseling in general public settings such as hospitals, universities, primary and secondary schools, entrepreneurs, and communities. The certification for psychological counselors was ended in September 2017 by the States Council; by then, 1.2 million counselors had passed the certification examination and clinical practice requirement (H.-Y. Huang, 2018). New regulation and register systems of psychological counselors are currently being drafted under the supervision of the Ministry of Human Resources and Social Security of China. The CPS also developed its Registry System for Chinese Clinical Psychologists. This system has gained substantial influence on qualification, continual education and training, and the stipulation of ethical standards. The importance of formal education and training is recognized; graduate programs in applied (clinical) psychology are mushrooming whereas the standards for clinical training were specified at the national level in 2014 (H.-Y. Huang, 2020). China has also issued recommendation standards, standard terms for goods reporting, recommendation process, and information management. China National Technical Committee for Service Standardization issued recommendation standards for psychological counseling services, which include three parts: standard language (China National Technical Committee for Service Standardization, 2018), service procedures (China National Technical Committee for Service Standardization, 2013a), and information management (China National Technical Committee for Service Standardization, 2013b).

PUBLIC PSYCHOLOGICAL SERVICE IN CHINA

We are going through a period of tremendous transformations worldwide, facing prevalent and fundamental changes in various fields such as economics, politics, society, culture, and technology. To deal with different kinds of issues accompanied with changes, psychological factors such as sense of safety, trust, achievement, resilience, and well-being would help countries, organizations, communities, and individuals resist the risk and make achievements.

Chinese government have acknowledged that mental health is a major issue at both public health and society levels, and it could make huge impacts on economic and social developments. In late 2016, 22 national departments issued altogether The Guiding Opinions on Reinforcing Mental Health Services (Ministry of Civil Affairs of the China, 2017). This is the first document at the macroscopic level to improve mental health services. At the beginning of 2019, a social mental health services system was established and put into practice in 64 pilot cities, and the system has been further polished during the past 3 years. In 2020, due to the coronavirus pandemic, the city of Wuhan was added as another pilot city (National Health Commission of China, 2020). The development of a social services system using theoretical psychology is not equal to building a new set of ethical standards for theoretical research and paradigms from scratch but to use existing theories and experiences to guide the practice, acquire more experiences, and explore new applications and directions for psychological research. Effective intervention using big data to give forewarning on social or individual stress events can be a very good example.

In the digital era, as for the specialty of current incidents, psychological services are offered via the Internet and artificial intelligence. Mental health apps are emerging in the area of mobile health in China. According to a review of Chinese mental health apps (Shang et al., 2019), there were at least 997 Chinese apps featuring “mental health” in the market by 2018. A close examination of 63 apps has indicated that popular mental health apps usually provided a synthetic platform organizing resources of information, knowledge, counseling services, self-tests, and management for the general population with mental health related inquiries. The quality of the apps was rated as acceptable, on average, suggesting some space for improvement. Official guidelines and regulations are urgently
required for the field in the future (Shang et al., 2019). During the recent COVID-19 pandemics, distant psychological support has been well accepted and has been proven as quite effective (S. Liu et al., 2020).

PSYCHOLOGICAL SERVICES IN NATIONAL CRISIS AND COMMON AFFAIRS

After the 2003 SARS epidemic, when the state inaugurated a large-scale public health reform, 6.86 million renminbi (the so-called “686 Project”), the largest funding by then, was invested in mental health. The 686 Project aimed to identify patients with major psychoses, have them assessed and registered, and offer them medications and follow-ups. The results of the program include a highly cited epidemiological study indicating 17.5% of lifetime prevalence of any mental disorders, which means 173 million people suffering from mental illness nationwide (Phillips et al., 2009).

The Wenchuan earthquake in 2008 (69,227 confirmed dead, 17,923 listed as missing, -45.6 million people affected by the earthquake) was a turning point of the mental health services in China. Those affected were in need of psychological first aid, and over 1 million affected populations might need long-term intervention. For the first time, psychological interventions were included in the national reconstruction plan. Psychological aid stations were set up in the largest survivor shelters in the first week after the earthquake. Trained psychologists and volunteers reached the survivors to assess their psychological needs and mental health status, and provided psychological first aid to high-risk people. In addition, several crisis intervention hotlines as well as an Internet-based intervention platform were put into operation. After the earthquake, integrated psychological, medical, educational and other social resources, an overall planning, scientific, and effective system of psychological aid was founded. Trauma-related psychology is fast-blooming and results in rapid growth of both research and clinical practice.

As the first country shocked by COVID-19, Chinese psychologists actively provided psychological services soon after the COVID-19 breakout in January 2020. At the emergency response and administration level, guideline suggestions were provided to governmental agencies to take necessary actions to prevent public panic and promote psychological relief from the beginning of the blockage. The psychological intervention had been integrated into the national emergency administration from the early stage. On January 26, 2020, the Chinese Center for Disease Control and Prevention (China CDC) issued the guideline of emergency psychological crisis intervention during COVID-19 outbreak (Xihua Press, 2020a). Shortly after the lockdown through China, the National Health Commission released the guideline for psychological intervention hotlines during COVID-19, guiding the hotlines setup, counselor training, and supervision (Xihua Press, 2020b). The guideline also addressed the importance of ethics in distance counseling. Other guidelines for psychological services targeting different groups were later issued and implanted at the national level.

The Chinese central government prioritized timely mental health services for those directly impacted by the pandemic, including patients and frontline health workers, suspected patients and families in quarantine, close contacts, and other vulnerable groups. Mental health professionals were part of the medical crew assisting Hubei from other parts of China. Emergent research was conducted to understand and monitor the psychological impact of COVID-19, and intervention programs were implanted for those in need. Emergent medical staff showed signs of anxiety and depression, lack of sleep, and other stress symptoms, and reported little or ineffective coping strategies (Q. Chen et al., 2020). An early plan was conducted with the medical staff working at the hospitals in Wuhan to reduce stress level and maintain well-being of medical staff, and contained three parts: (a) building a psychological intervention team which provided online courses on coping and relaxation, (b) a psychological assistance hotline team which provided distance counseling, and (c) an intervention team which provided group activities to release stress (N. Zhang et al., 2020). The psychological services for the general population (online education programs, reading materials, individual distance counseling, and online self-helping apps) were mainly provided remotely via the Internet or mobile phones (S. Liu et al., 2020). Mental health programs for special groups were also developed. For instance, elderly people have limited resources and capabilities to access Internet-based interventions. Families could not visit elderly who lived in nursing homes. Brief interventions, which can be conducted by social workers and caregivers, were developed for elderly people in communities and in nursing homes (Y. Yang et al., 2020).

PSYCHOLOGY IN EDUCATIONAL SETTINGS

Educational psychology is the earliest research and application field of psychology research, and the first Chinese textbook of Educational Psychology was published in 1924 (Sun, 2011). The professional committee of educational psychology was established in 1962 and is the first branch of the CPS (2021). In China, psychology is a compulsory course in teacher training. Most of the psychology departments were originally set up in normal schools. Educational psychology is also the most taught undergraduate psychology course in Chinese universities. Therefore, educational psychology has a tradition and advantage in psychological research in China. Chinese educational psychologists and students used to focus on the “learning process” and the “cognitive processing process” and followed Western theories, but in the past 20 years have paid increasing attention to practical problems in teaching and school settings in Chinese societal backgrounds such as China’s social and economic development (e.g., education ecosystem and characteristics of left-behind children and intra-national migrant children) and collective cultures (e.g., the role of “JiTi,” a well-organized collective characterized by teamwork and cohesive force) (X. Li & Xu, 2018).

Educational psychology and school psychology have profoundly been influenced by China’s family planning policies (e.g., only-child policy, 1980–2016, Hesketh et al., 2005) and education policies (e.g., college entrance examination system, 1978–, S. Yu et al., 2018). Insights from psychology also

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influence the education policy in China. For instance, mental health is becoming one of the most important issues in school psychology in China (D’Amato et al., 2013), which underpins the development and release of the “double ease” policy (ease the burden of excessive homework and off-campus tutoring for students undergoing compulsory education), which has been carried out since 2021.

PSYCHOLOGY IN ORGANIZATIONAL SETTINGS

S. Liu and Gan (2021) analyzed 1755 articles published in Chinese Journal of Applied Psychology between 1981–2020, and concluded three main areas of publications: organizational psychology, education psychology, and psychological assessment. A shift toward the theme of mental health merged in the recent two decades. In terms of keywords, “self-esteem” and “psychological health” appeared in the journal for the first time after 2000, and were ranked the third and the sixth most frequently used keywords. However, organizational psychology has been the most influential field based on citation analysis. The most cited research has included research on organizational performance, job involvement, and satisfaction (S. Liu & Gan, 2021).

Gong (2011) analyzed 651 management psychology articles published in 8,200 major journals in China from 1999–2008. In terms of published journals, the application field of management psychology is very wide. In terms of the number of published papers, the number is increasing year by year. In terms of content, it mainly focuses on incentive problems, leadership behavior problems, management decision-making problems, team psychological problems, and individual psychological problems, with increasing emphasis on application and development in the real world.

As a practical application of organizational psychology, China began to carry out employee assistance programs (EAP) as early as 1998. The China-EAP international forum has been held annually since 2004, and speakers and attendees are leaders of top enterprises in finance, aviation, automobile, high technology, and other industries at home and abroad gather together with top experts in academia. The China National Employee Assistance Professionals Association was established and recognized by the Employee Assistance Professionals Association. By 2019, there were nearly 100 registered EAP service institutions in China, and about 10,000 psychological counselors and psychological professionals were engaged in EAP. Since 2018, an EAP executive qualification certificate has been issued by the China Vocational Skills Training Association. However, the gap between EAP providers and market demands is very large, and there will be much room for development in the future.

CONCLUSIONS

As China is a country with a large population, we have a spontaneous need for applied psychology. Publication trend has indicated that the fields of mental health, education, and organization attract the most attention of applied psychologists in China (S. Liu & Gan, 2021). Here, we only covered a few fields (mental health, education, and industry) where psychology has been applied. Applied psychology also supports other important aspects of personal, community, social, and economic lives in China. For instance, there are growing interests in sport psychology (C. Li & Hwa Kee, 2019), environmental psychology (Xu et al., 2017), human factors (Xu & Ge, 2018), transport psychology (Y. Y. Zhang et al., 2019), applied gerontology (Zhou et al., 2013), and big data and psychology (P. Yu et al., 2015), to name only a few. Tremendous growth in the demand of psychology in society has emerged in recent years, as a result of the growing awareness among people and government of the importance and practical value of psychology in different perspectives. Such change in psychology studies was catalyzed externally by social demands, and demarcated by 2008 due to the demand of psychological support after the Wenchuan earthquake, and has become an essential part of civilian service during the COVID-19 pandemic (Zhang et al., 2022). The need for a stable and harmonious society continues to drive the development of psychology as both a discipline and a profession in China.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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REFERENCES


Advances in Social Psychology in China
Huajian Cai¹,² and Hui Zhang¹,²

Abstract
Since its revival in 1979, Chinese social psychology has experienced tremendous advances, particularly in the recent decade. These advances manifest in related academic organizations, education, research and applications. Some particularly notable advances include research about indigenous psychology, psychological impacts of Chinese societal changes and COVID-19-related research. Overall, Chinese social psychology has produced increasing academic and social influences, inside and outside China. Nevertheless, there is still big space, in terms of both quantity and quality, for Chinese social psychologists to improve. Future study needs to pay more attention to Chinese social issues and develop more China-fit theories to account for Chinese social psychology and phenomena.

Key words China, Chinese, social psychology, indigenous psychology

In recent decades, along with rapid economic growth for more than 40 years, Chinese social psychology has also experienced rapid development, particularly in the recent decade. The purpose of this paper is to introduce social psychology to the audience around the world, with a focus on Chinese Mainland. This introduction includes three sections. In the first section, I will give an overview of Chinese social psychology, including related organizations, education, research and application. Then, in the second section, I will focus on some highlights of Chinese social psychology. Finally, in the third section, some characteristics, limitations and outlooks of Chinese social psychology would be summarized.

Chinese Social Psychology: An Overview
The history of social psychology in China can be traced back to about 100 years ago. Early efforts have been mostly focused on textbook production and university education, with some empirical research published occasionally. However, the development was interrupted in 1949 due to the foundation of the new China. Chinese social psychology was not revived until 1979 when China started to reform and open to the world (X. Shi, 1989). Today, social psychology has become a major force in Chinese psychology.

Organizations On April 22, 1982, the first academic organization about Chinese social psychology, the Chinese Society of Social Psychology (CSSP), was founded, with a total of 186 initial members. In 1997, another academic organization of Chinese social
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psychology was founded as a division of the Chinese Psychological Society (CPS-SP). Within each of the two main academic organizations, gradually, many divisions focusing on more specialized areas of social psychology were founded, such as cultural psychology, positive psychology, political psychology, marriage psychology, family psychology and so on.

While most members of the CSSP have a sociological background, most members of the CPS-SP have a psychological background, corresponding to the two main streams of social psychology in the West, a sociological orientation and a psychological orientation, respectively. Both organizations are very active. They hold academic conferences every year as well as many other activities such as workshops frequently. Currently, both organizations play important roles in circulating social psychological knowledge, facilitating academic exchanges, engaging in governmental decision making, improving societal harmony and so on.

In 2022, the annual conferences of CSSP and CPS-SP were held in Guangzhou and Changsha, respectively. Both conferences held hundreds of presentations and attracted a large number of audiences online. For instance, for the 2022 CSSP annual conference, more than 600 talks have been presented and more than 50,000 people listened to those talks online. Obviously, social psychology is very popular in current China, not only among academic people but also among lay persons. Education In the 1980s, there are only five psychological departments in universities or colleges in China. Today, however, there are more than 300 psychological departments or schools. In most psychological departments or schools, social psychology has been listed as a required course for undergraduate students who major in psychology. It is also one of the most popular Ph.D program for those a pursuit a Ph.D in psychology. Many departments also provide more specialized optional courses such as cultural psychology, social aspects of forensic psychology, psychology of intimate relationships and so on. Many classic textbooks in the West have been translated into Chinese, such as Social Psychology written by David Myers, The Social Animal written by Elliot Aronson, Psychologie des Foules by Gustave Le Bon, The Psychology of Attitude Change and Social Influence written by Phillip Zimbardo and Michael Leippe, Self-Efficacy: The Exercise of Control written by Albert Bandura, and so on. Many textbooks written by Chinese social psychologists are also published, … Beyond universities, social psychology is also very popular among non-psychological populations. Many social psychological books appear in the list of the best-sellers, such as An Equate-to-Differentiate Way of Decusiuin-Making written by Li Shu, Psychological Studies of Social Issues edited by Xu Yan, Foundations of Social Psychology written by Hou Yubo. Murphy’s Law written by Li Jie, and so on.

Research Advances in academic research are also incredible, particularly in the recent decade. The situation in 2022 provides a good illustration. This year, Chinese social psychologists have published hundreds of journal articles and made thousands of social psychology related presentations at numerous conferences. These published or presented research has covered a wide range of topics, including self (e.g. self-esteem, self-efficacy, self-cheating, self-identity, self-construal, self-control, self-objectification, authenticity), emotion (e.g. awe, nostalgia, envy, jealous, shame), interpersonal psychology (e.g. attractiveness, marriage satisfaction, couple empathy, trust, justice, corporation, prosocial behavior, intimate relationship, social comparison, social ostracism, social support, group conflict, discrimination), social cognition (e.g., impression formation, prejudice, stereotype, implicit social cognition), internet psychology (e.g., internet addiction, cell phone usage, cyber bully), cultural psychology (e.g., cultural difference in optimism, critical thinking, risk perception, cultural changes, cultural mixing), psychological well-being (e.g., happiness, positive affect, life meaning, depression, anxiety, loneliness, rumination), morality (immoral behavior, moral decision, morality change, …), computational social psychology (e.g. emotion computation, social change,
moral judgement) and so on. Among the published works, a large portion of them appeared in English journals. For instance, among 144 papers published in the year 2022 by social psychologists from Beijing, 111 were published in English journals. This is remarkable given that 10 years ago very few Chinese psychologists had the expertise to get their work published in English journals.

Even more notable, some work has been published in top journals around the world. For example, Jiang and Sedikides (2021) found that awe motivated authentic-self pursuit via self-transcendence (Journal of Personality and Social Psychology; Jiang & Sedikides, 2021); Cai et al. (2022) demonstrated that implicit social cognition, including stereotype, attitude and self-esteem, manifested both stability and change-ability with a large longitudinal sample (Developmental Psychology; Cai et al., 2022). Bao et al. (2022) found that individualism had been increasingly accepted since 1949 (American Psychologist; Bao et al., 2022). Zhang et al. (2022) found that the thalamus played an important role in relieving the pain elicited by noxious thermal stimuli (Journal of Neuroscience; Zhang et al., 2022).

**Application** After more than four decades of rapid development, materially, Chinese people have been living a better and better life. Psychologically, however, the situation is much more complicated. To promote individual well-being and societal harmony, the Chinese government has proposed a national strategy for building a social psychological service system. As a result, many new divisions of social psychology under CPS-SP and CSSP have been created, aiming to facilitate applications of social psychology in many special domains of social life. Such divisions include Community Psychology, Managerial Psychology, Marriage and Family Psychology, Organizational Psychology, Legal and Forensic Psychology, Military Psychology, School Bully and Violence Prevention Psychology, and so on.

Besides, numerous applied studies have also been done. So far, this research has examined many social issues emerging during the rapid development of China, including poverty, social inequality, corruption, left-behind children, doctor-patient relationship, internet use, drug addiction, social class, social mobility, materialism, cultural mixing, disaster coping, group conflicts, luxury consumption, and so on. For instance, a bunch of studies have been devoted to corruption in China. These studies not only revealed many factors that are related to corruption in China (e.g., collectivism, salary) but also suggested some solutions (Dong & Torgler, 2013; Huang et al., 2015; Li et al., 2019).

**Summary** Since its revival in 1979, Chinese social psychology has undergone unprecedented progress, particularly in the past decade. These tremendous progresses manifest in many ways, including, of course, but not limited to, related academic organization, education, research and application as we have reviewed above. Overall, Chinese social psychology has become an important force in the international academic arena. Next, we highlight some salient research of Chinese social psychology.

**Chinese Social Psychology: Some Highlights**

**Research about Indigenous Psychology**

Given that modern psychology mostly originated from the western culture, understanding Chinese psychology with Chinese indigenous concepts and theories has been an enduring pursuit of Chinese psychologists. Over the past decades, Chinese social psychologists have made substantial progress in indigenous psychology. Specifically, many efforts have been devoted to understanding some core values of Chinese traditional culture.

Becoming a Junzi (君子) is supposed to be the ultimate goal of a person in terms of Chinese traditional culture. Alternatively, Junzi personality is the ideal personality of a person in Chinese culture. What does a person with Junzi personality look like? Or what does a Junzi personality mean? Ge and Hou (2021)
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addressed these issues empirically by looking into the classic dialects of Confucius (Ge & Hou, 2021). They found that Junzi Personality (君子人格) includes five components: “wisdom, benevolence, and courage (智仁勇),” “respectfulness and propriety (恭而有礼),” “conversancy with righteousness and cherishment of benign rule (喻义怀德),” “refraining from what should not be done (有所不为),” and “self-cultivation rather than contentions with others (持己无争).” As a kind of ideal personality Junzi personality should be adaptive. Indeed, the existing few studies showed that Junzi personality was beneficial for mental health (Ge & Hou, 2021) and interpersonal relationships (Ge, 2020).

Filial piety is a core value of Chinese traditional culture. An early study has proposed a dual piety model, distinguishing authoritarian filial piety from reciprocal filial piety (Yeh & Bedford, 2003). In a recent study, Ge (2021) found that Chinese filial piety (孝) includes 9 components: respecting parents (尊敬父母), submissive to parents (服从父母), treating parents nicely (和颜对待父母), self-discipline (守身不辱父母), accompanying parents (陪伴父母), pursuing prestige (扬名以显父母), missing parents (思慕父母), not interfering parents (不干涉父母), and providing advice (劝谏父母) (2021). Further, a number of studies demonstrated diverse adaptive value of filial piety in modern China such as enhancing happiness, relationship harmony and academic performance and so on. For instance, one study found that student with high reciprocal filial piety manifested better academic performance after perceiving parents love (Chen & Ho, 201).

Ren (仁) and Li (礼) are another two core values of the Confucian tradition. How have the two core values evolved over the long history of Chinese society? To address these issues, B. Hu et al. (2021) investigated the changes in Ren- and Li-related words in SikuQuanshu (四库全书), a complete collection of Confucian classics. Results showed that from the Spring and Autumn period to the Qing Dynasty, “Ren” peaked in the Wei and Jin periods (220–420); but both “Ren” and “Li” became least popular during the Yuan Dynasty (1279–1368).

Modesty (谦虚) is also highly valued in Chinese traditional culture. A bunch of studies have been devoted to modesty. By examining 1,857 Chinese traditional books J. Hu and Huang (2009) identified four components (i.e., authenticity, appropriateness, fakeness and boldness) and five functions (i.e., harmony, ambition, defense, politeness, morality) of modesty. Further, combining with another survey among current college students, they developed a modesty scale with three underlying factors (i.e., self-defense, self-integrity, image-promotion). Chen et al. (2009) identified three components of modesty: self-effacement, other-enhancement, and avoidance of attention-seeking and developed a modesty-behavior scale (Chen et al., 2009). By examining lay people's theory about modesty, Y. Shi et al. (2009) identified 11 central (low-key, polite, friendly, takes-criticism, not conceited, easygoing, authentic, steady, cautious, aspiring and magnanimous), 10 peripheral (conscientious, calm, capable, good listener, graceful, unworldly, others-up-me-down, likeable, mature, and self-disciplined), and 13 marginal characteristics of modesty (plain, reflective, hardworking, quiet, optimistic, confident, objective, tactical, introverted, determined, sociable, not confident, and hypocritical).

Obviously, studies from the perspective of indigenous psychology can help us achieve a better understanding of the meaning of some Chinese traditional core values and hence provides a solid foundation for future empirical research on these values.

Research about cultural and psychological changes

China has experienced unprecedented economic growth and societal transformation. How have Chinese culture and psychology shifted along with the rapid and massive societal changes? To date, a large body of research has been done. This research has examined a wide range of topics, including cultural
values (e.g., traditional vs. modern values, individualistic vs. collectivistic values, Schwartz values), self (e.g., independent vs. interdependent self-construal, self-esteem and narcissism), personality (e.g., Big-five personality, Chinese Big-four personality), emotion (e.g., happiness, anxiety, depression, loneliness), motivation (e.g., achievement motivation and need for uniqueness), mental health (e.g., SCL-90, positive vs. negative coping), parenting style and child psychology (e.g., initiation vs. inhibition, promotion-oriented vs. prevention oriented, shyness, autonomy, relatedness), interpersonal relationship (e.g., importance of relationship or Guanxi vs. merits), trust (e.g., general trust, specific trust), social attitudes and behaviors (e.g., sex-related attitudes and behaviors, political attitudes, aggressive behaviors) (for a review, see Cai et al., 2021).

These studies revealed an overall rise of individualism but a complex picture of collectivism shifts: an overall declining collectivism but with some traditional values persisting, such as emphasis on filial piety, family and Guanxi. These findings suggest the coexistence of multiple cultures in current China; and, of course, also have important practical implications for both Chinese people and the government in dealing with the changes.

**Research related to the COVID-19 pandemic**

In recent years, a highly notable series of research has been concerned with the pandemic of COVID-19. A total of more than 300 COVID-19-related articles have been published by the end of 2022 (?). These published works have mainly examined three COVID-19-related issues.

The first aspect involves the psychological impacts of the pandemic. The surveyed outcomes include cultural orientation, emotions, deception, interpersonal conflict, belief in a just world, risk perception, anxiety, overeating, social distancing, pro-sociality, subjective well-being, resilience, hoarding behavior, perceived discrimination and so on. For example, by examining natural language on a popular social network (Weibo) in China during the outbreak of COVID-19, a study found that the outbreak of COVID-19 promoted collectivism in China (Han et al., 2021).

The second aspect implicates the strategies and factors that are related to coping with COVID-19, including emotion regulation flexibility, meaning-making, self-affirmation, cognitive behavioral therapy, vaccine persuasion, collectivism, autonomous orientation, style of information presentation, risk perception, perceived information overload, proactive personality and so on. For example, one longitudinal study found that meaning-making can help people relieve the negative impacts of COVID-19 (Yang et al., 2021); another longitudinal study found that risk perception predicted future preventive behavior in the U.S. but not in China (Li et al., 2022).

The third aspect involves some typical psychology and behaviors that are particularly salient during the pandemic, such as mortality salience, death consciousness, consuming behaviors, family resilience, social media trust and so on. For example, a survey of 712 respondents from China showed that COVID-19 misperception was positively associated with social media information seeking but negatively with the need for cognition, with general misperceptions as mediator and locus of control as moderator (Su et al., 2022).

**Chinese Social Psychology: Characteristics, Limitations and Future Outlook**

Social psychology in China has been rapidly developing in the past years. Several characteristics surface. **First**, Chinese social psychologists published more English articles in international journals than Chinese articles in Chinese journals and engaged in more and more international collaborations, indicating substantial progress in research capability and the pursuit of international influences. **Second**, Chinese social psychologists have examined more and more research issues and areas, suggesting an increasing diversity of research interests. **Third**, despite the
strong influences of western psychology, using empirical methodologies to study indigenous social phenomena has also received substantial attention, suggesting Chinese enduring pursuit of indigenous psychology. Fourth, some articles appeared in top journals such as *Nature Human Behavior*, *American Psychologist*, *Journal of Personality and Social Psychology*, *Developmental Psychology*, *Journal of Applied Psychology* and so on, suggesting some Chinese social psychologists are entering the first-class team in the world. Fifth, social psychology has been applied in more and more areas of social life, producing more and more influences on the Chinese government and Chinese society as well as the daily life of Chinese people.

Although a bright future is anticipated, we have to say that Chinese social psychology is still in its early stage. There is still a long way to go before Chinese social psychology becomes a laudable force in the world that is comparable to the growing status of China. First, despite the increasing quantity of published papers, high quality research is still relatively rare. Future research should pay more attention to quality rather than quantity. Second, most research was based on concepts and theories that originated from the West, which may not fit well in the Chinese society, theories and concepts that dovetail well with Chinese culture and society are needed. Third, most research has examined what mainstream of Western psychology has concerned. Future study needs to pay more attention to social phenomena and psychology that are important and unique to China and Chinese people. Fourth, despite increasing applications of social psychology, more is needed to satisfy the increasing needs of Chinese people, government and society.

**References**


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Biography of the first author

Huajian Cai, Ph. D, Professor of Psychology at the Institute of Psychology, Chinese Academy of Sciences, Beijing, China. He received his Ph.D from East China Normal University in 2002 and did his post-doc research at University of Washington, working with Anthony Greenwald. He was the former Associate Editor of Asian Journal of Social Psychology (2014-2017). Currently, he is the Director of Personality and Social Psychology Research Center at Chinese Academy of Sciences, , the President of Social Psychological Division of Chinese Psychological Society (2021-2024), Associate Editor of Acta Psychologica Sinica (Chinese), consulting editor of Advances in Psychology (Chinese). His research interests include Social Psychology, Culture Psychology, Personality Psychology and so on.
Environmental Psychology

Jianping Wu

Chinese environmental psychology research brings together scholars from various disciplines such as psychology, architectural planning, landscape architecture and sociology to explore the interaction between human and environment from different perspectives. In the past decade, environmental psychology has made great progress in China, with rich research topics and increasing subject penetration of environmental psychology. At present, the research hotspots of environmental psychology in China focus on: 1) the study of human sustainable behavior and environmental protection in order to rebuild the friendly interaction between human beings and environment; 2) the benefits of natural environment for human health, restorative environment, urban healing space design, environment and the quality of life, horticultural therapy and forest therapy, etc.; 3) the study on the combination of environmental risk perception with environmental problems, public health with social psychology, etc. In the past three years, climate change, COVID-19 and air pollution have been environmental issues of public concern. Studying the psychological impact of these aspects on the public and guiding the correct decision-making, as well as topics such as place attachment and virtual environment, are research hotspots in this field.

It can be seen from the research that Chinese environmental psychology has a very broad prospect and practical significance, and has strong practical application and implications. The future development of environmental psychology in China are as follows: Integrate sustainable development into the school education system; Promote interdisciplinary integration; Strengthen international dialogue based on local research; Give full play to the advantages of the disciplines; Strengthen applied research. In view of current environmental issues, our division looks to play a role during the process of social development, and provide theoretical support for the formulation of environmental policies and the construction of a beautiful and healthy China.

It is the historical responsibility and mission of Chinese environmental psychology to form a human and natural life community, and thus to contribute to finding the solution for global environmental problems.

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Developmental Psychology in China at the 21 Century: A Snapshot of National Collaborations

Sha Tao and Qi Dong

Abstract

Developmental psychology in China has been expanding fast and making significant progress in the first two decades of the 21st Century. National collaborations in developmental psychology have great impacts in China, while being less known by the international community. The Chinese Psychology Society (CPS) serves as the major organization forming and connecting the community of developmental psychology in China. The branch of developmental psychology and its members constitute the core forces from research to practices. One landmark national collaboration of developmental psychology in China was the National Children’s Study of China (2006-2011), the first national representative psychological investigation on nearly 100,000 children and adolescents. The other one is the ongoing national imaging genetic cohort study of more than 30,000 school children, which are part of China Brain Initiative. The fast progresses made by developmental psychology in China have promoted and will continuously promote better understanding and supporting human development in China as well as in the world. And, with the branch of developmental psychology, CPS will bridge the community both domestically and internationally.

Keywords: Developmental Psychology; China, National Children’s Study of China; Chinese Child Brain and Mind Development

The history of developmental psychology in China and its major progresses made by the beginning of the 21st Century have well been summarized (Liu, 1982; Tardif & Miao, 2000; Miao & Wang, 2003). Since then, developmental psychology in China has been expanding and advancing rapidly. With more than 50 branches, the branch for developmental psychology has consistently contributed the largest number of submissions and presentations to the Chinese Psychology Society (CPS). The research topics now cover various domains of human development, from cognitive development and learning to language and reading acquisition, as well as social-emotional development. The target populations include both typical development and developmental disorders, such as attention deficits disorder, reading disorders, math learning disorders, depression, anxiety, substance addiction, internet and game addiction, autism, dementia, and Alzheimer’s Disease. The findings also span from cognitive-behavioral and brain structural-functional levels to gene-environmental interactions. Simultaneously, the relevant practice of developmental psychology has been increasingly integrated into education, healthcare, and psychiatric clinics. These accomplishments can be seen through papers and books published both internationally and domestically, presentations and discussions at conferences, forums, and workshops, and frequent media coverages online and in print. This brief article aims to introduce some milestone accomplishments that, while well-known in China, are less exposed to the international community, such as one major organization—the branch for developmental psychology, the National Children’s Study of China (NCSC), which was completed in 2011, and the Chinese Child Brain-Mind Development (CCBD 2021-2030; the first phase 2021-2026).

The Branch for Developmental Psychology, CPS

The Branch for Developmental Psychology, CPS,
Developmental Psychology in China cont.

was founded as one of the major branches of the Chinese Psychological Society (CPS) in 1984. Before 1984, there was a branch for developmental psychology and educational psychology together, reflecting the strong connection between developmental psychology and the education community in China. Most prominent developmental psychologists have served as the branch directors successively, from the founding director Professor Fan Liu (1984-1989), Professor Zhengyuan Xu (1989-1993), Professor Fuxi Fang (1993-2005), Professor Qi Dong (2005-2013), Professor Zou Hong (2013-2017), and Professor Xiaoyi Fang (2017-2021). The current director is Professor Sha Tao (2022-). Beijing Normal University sponsors the administrative office.

There are 50 board members from 37 universities and research institutes around China, who are nominated and elected by the community of developmental psychology in China. The core mission of the Developmental Psychology Branch is to advance the understanding and promotion of lifelong human success and society prosperity through facilitating developmental psychology research, academic exchanges and collaborations, talent training, transplantation application, and dissemination. Research and application comprehensively cover life-span cognitive, personality, social, and emotional development from both normal development to various developmental disorders, from brain/biological mechanisms to psychological mechanisms, and from gene, environmental, and gene-environmental interaction perspectives.

The branch holds a national academic conference on developmental psychology every two years, board member meetings every year, and various topical seminars, forums, workshops, and panel discussions from time to time. Under the guidance of the CPS, the branch initiated and has maintained a national team for child and adolescent mental health promotion, led by Professor Lizhu Yang (Liaoning Normal University) first, then by Professor Sha Tao (Beijing Normal University). Dissemination of scientific research findings in developmental psychology has been conducted through the media and various workshops, benefiting hundreds of millions of children and adolescents, their parents, and teachers.

National Children’s Study of China (2006-2011)

The National Children’s Study of China (NCSC, 2006-2011; Dong & Lin, 2011) was supported by the Ministry of Science and Technology as a Special Project in Fundamental Research of National Science and Technology (Chair Principal investigators: Professors Qi Dong, & Chongde Lin) and aimed to develop the first national databases about Chinese children and adolescents’ psychological development with a national representative sample and standardized instruments. The national team had members from diverse disciplines, such as developmental psychology, educational psychology, cognitive psychology, psychometrics, psychiatry, pedagogy, and sociology. The National Key Laboratory of Cognitive Neuroscience and Learning at Beijing Normal University led the team of more than 300 senior researchers and 1600 graduate students from 52 universities, research institutes, and hospitals all around China in conducting the first national representative investigation on children’s psychological development in China. The national team achieved several successes, including the development of series of critical indicators and standardized instruments for the evaluation of children and adolescents’ development in cognition, academic achievement, and social-emotional adjustment; the national representative sampling of 95,765 Chinese children and adolescents as well as their primary caregivers; the establishment of the first national databases on children’s psychological development; the national representative norms; and the web-based platform for sharing instruments, data, and findings.

The first contribution of this national study to developmental psychology is the national representative sampling. The 95,765 participants were from 31 provinces and autonomous regions around mainland
China, and selected through a Three-stage-Strati-fied-Probability-sampling (PPS) strategy using 100 counties as the primary sampling units and random-
ly selecting children and adolescents from more than 600 schools. The sampling design effect was 2-4, meeting or exceeding similar survey projects (Dong & Lin, 2011). This national representative sample has allowed the academic and other communities to gain a better understanding of psychological develop-
ment in the Chinese population, including region-
al, urban-rural, family, and school disparities.

The second contribution is the development of re-
search protocols shared and followed by the national teams, including 41 data collection groups. The na-
tional team rigorously coordinated the training, eval-
uation, field observation of testers, and process mon-
itoring to ensure high-quality data collection. The questionaire response rate was more than 99.4%, with an effective response rate of more than 98.5% (Dong & Lin, 2011).

The third contribution is about the open accessed multi-dimensional indicators, standardized instru-
ments and norms for evaluating children and adoles-
cents' psychological development in China (Dong & Lin, 2011). There were 53 aspects in four important domains, namely cognitive development (attention, visual-spatial processing, short-term and long-term memory and reasoning), academic achievement (Chinese reading and math), social-emotional de-
velopment (self-concepts, self-esteem, social belief, psychological wellbeing, negative feelings, prosocial and problem behaviors), and growth environ-
ment (community safety and connectiveness, school physical and psychological environment, family SES, parenting, life stress). Such multi-dimensional indicators, standardized instruments and norms provide well-round frameworks and tools for evaluating normal development and helping identify at-risk groups. Since 2008, Chinese national and regional evaluation of basic education have adopted the core indicators and instruments widely to millions of students. The fourth contribution is about the national data-
bases on psychological development of Chinese children and adolescents (Dong & Lin, 2011). The data make it possible to address important research questions about the national status, distribution, and disparities with respect to Chinese cognitive capital in the future (e.g., Tao, et al., 2015; Zhou, et al., 2016). Moreover, based on the data, policy reports were submitted and adopted by the central and local gov-
ernment sectors in charge of education and child care. For example, the report about cognitive develop-
ment, academic achievement and social-emotion-
al adjustment by grade and the urban-rural dispari-
ties served as one major evidence to develop “The national strategic plan for Long - and Medium - Term educational reform and development (2010-2020)” and “The national guidelines for psychological edu-
cation (2010 revised)”. Based on the national data-
base, a school psychological environment index was computed and used to reveal the national profiles (Tao, et al., 2018).

Chinese Child Brain-Mind Development: A National Cohort Study

Chinese Child Brain-Mind Development (CCBD) is a national cohort study for school children brain, cognitive and non-cognitive development, and the gene-environment interaction. It has been launched since December 2021 after five years of planning, piloting, and preparation. This project is supported by the Ministry of Science and Technology as part of China Brain Initiative (Chair Principal Investigator: Professor Qi Dong). According to the plan approved by the central government, this longitudinal study will last 10 years, and the first phase covers 5 years, from 2021 to 2026.

CCBD aims to establish multi-scale and multi-mode longitudinal databases about brain-behavioral de-
velopment of more than 30,000 children from 30 study sites, starting from 6-7-years old. It aims at decoding how human brain develops, mutually in-
teracts with cognitive development, reading and
Developmental Psychology in China cont.

math learning, and social-emotional development during the school years. By integrating gene-environment-brain-behavioral quantification, this cohort study also aims to identify the neural imaging markers, protective and risk factors for ADHD, reading and math disorders, and emotional-behavioral disorders. With the systematic investigation from gene to environment, from brain to behavior, from age norm to individual differences in developmental status and trajectories, this study will serve as a powerful platform for basic and translational research in child brain study.

CCBD is unique in closely connected with schooling experience. Chinese society is very keen on schooling. Chinese children usually spend much more time on school work than their peers in most other countries. And there are tens of millions of children suffering from learning disorders or social-emotional problems. Furthermore, school experience matters a lot in China. The national representative study (NCSC) mentioned above showed that school experience was more important than or as important as family social economic status to students' academic performance. Thus, CCBD will not only help understand the developmental pattern in school years, but also help advance evidence-based school improvement and move forward personalized instruction.

CCBD marks a significant step to advance developmental cognitive neuroscience, the new rising front integrating developmental psychology and cognitive neuroscience. In the past two decades, studies have been exploring child brain development and how it supports child behavior development. It is fascinating to examine the dynamic process of the neuroanatomical expression of psychological functions. Moreover, brain development varies hugely among children, even at the same age and of the same gender. Large cohort studies are necessary to help decode the complex connection between brain-mind developments. The major cohort studies about brain-behavioral development are exclusively conducted in the North American and Europe, with ABCD (Auchter, et al., 2018) and IMAGEN (Schumann, 2010) as the flagship projects.

In order to improve the feasibility of CCBD, a pilot study of imaging genetic cohort study of school children has been conducted in Beijing (Beijing Cohort Study) since 2015, first supported by the national science foundation of China (PI: Qi Dong), and then partially by Beijing Brain Initiative (PI: Sha Tao). The Beijing Cohort Study has been conducting by researchers from Beijing Normal University (BNU), Peking University (PKU) and Beijing Huilongguan Hospital (BHH) with deep consultation from Professor Gunter Schumann and Dr. Sylvan Desrivières from IMAGEN. Standardized Brain Imaging Data Acquisition protocols and strategies were carefully developed and have been implementing to ensure high imaging quality and the consistency across three scanning centers at BNU, PKU and BHH. This study is accelerated longitudinal, more than 800 6-12-year-old children have completed baseline brain MRI scan and comprehensive psychological assessments of cognitive, Chinese, and English reading, math, personality, emotional development, and mental health status. The yearly brain scanning and psychological assessments have been continuing. In addition, children's life events, daily activities, school, and home environment of both physical and psychological features are also quantified yearly. Based on baseline data, the Chinese pediatric brain MRI templates were developed and released first (Zhao, et al., 2019), then children's Cognitive and affective brain activation Atlas (Hao, et al., 2021), and the Chinese pediatric DTI-tensor templates (SACT: Chu, et al., 2022). With the first batch longitudinal data, new findings were reported about the development of three clusters of the default mode network (Fan, et al., 2021) and how school learning (e.g., learning to read) may help brain development (Wang, et al., 2022).

CCBD will be the largest longitudinal brain-behavioral development study with following more than 30,000 children of 6-7-year-old, compared with about 12,000 9-10-year-old children in ABCD and
Developmental Psychology in China cont.

about 2000 adolescents aged 14-year-old in IMAGEN. The interdisciplinary national research consortium is composed of most important researchers of developmental psychology, brain imaging, child psychiatry and pedagogy from more than 70 institutions in China. Furthermore, from the conception of CCBD, the national research consortium has kept communications with leaders from IMAGEN and ABCD on the core strategies, from sampling, constructs and instruments, data collection and quality control, and information platforms. The data collection will start in the summer of 2023. With proper implementation of data collection and data sharing, CCBD is expected to make visible contributions to decoding how genetic tendency, family and school experiences, individual’s activities may impact human development in dynamic ways and how to support human development more effectively.

In sum, developmental psychology in China is expanding quickly and has been making significant progresses. The branch for developmental psychology of CPS is dedicated to promoting developmental psychology research and relevant practices in China and serves as a bridge for China and the other parts of the world. Chinese national collaborative efforts in developmental psychology will significantly advance developmental psychology in China, as well as all over the world.

References


(陶沙, 刘红云, 周翠敏, 王翠翠, 孙聪颖, 徐芬, 董奇(2015). 学校心理环境与小学 4-6 年级学生认知能力发展的关系：基于全国代表性数据的多水平分析. 心理科学, 38: 2-10.)

Developmental Psychology in China cont.


Wang, Y., Guan, H., Ma, L., Luo, J., Chu, C., Hu, M., Zhao, G., Men, W., Tan, S., Gao, J. H., Qin, S., He, Y., Dong, Q., & Tao, S. (2022). Learning to read may help promote attention by increasing the volume of the left middle frontal gyrus and enhancing its connectivity to the ventral attention network. Cerebral cortex (New York, N.Y.: 1991), bhac206. Advance online publication. https://doi.org/10.1093/cercor/bhac206


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A Survey on Psychology + Artificial Intelligence in China

Xiaoqian Liu and Tingshao Zhu

Abstract

The advent of Artificial Intelligence (AI) and Big Data have created a whole new way for psychology research. With the development of the Internet and various smart wearable devices, virtual environment and real life integrate together. Various psychological and behavioral phenomena in real society can be recorded digitally as big data, providing rich data resources for psychological research. In this paper, we summarize the interdisciplinary research on psychology and AI in China in the last decade, and discuss the future development trend of psychology and AI.

Keywords: Artificial Intelligence, Psychology, China

1 Introduction

Artificial intelligence (AI) is a new technical subject, which develops theories, methods, technologies, and application systems to simulate and extend human intelligence (Zhong, 2012). AI can constantly improve its performance on collected data, so that the system can achieve better performance. Many psychological studies have found that individual behavior is affected by his/her current psychological status and emotion. Correspondingly, individual behavior is able to reflect individual psychological and emotional status. Based on this observation, psychology and computer science scientists in China have applied AI technology into psychological research. By data-driven, researchers build the mapping between behavior and psychology, which can overcome the temporal limitation of traditional psychological measurement and intervention guidance technology. This research mode further expands the application scope of psychology in various fields. This is of great significance to the development of psychology and AI technology.

2 Research progress of Psychology and AI in China

The characteristics of the development of AI in China can be divided into three layers: basic, technical and application. The application layer relates to commercialization very closely. The combination of psychology and AI at the application level has made breakthroughs in many fields. This paper summarizes the progresses in various research fields.

2.1 Psychometrics

Psychometric technology is the cornerstone of psychological research, and also the concentrated embodiment of application combining psychology and other disciplines. Currently, diverse behavioral data are produced and can be recorded in digital. Studies conducted on Web behavior data is of great significance to psychology research, which is a frontier issue combining psychology and AI technology as well.

Chinese researchers proposed personality recognition methods based on various behavioral data. Li et al. used social media data to identify personality, with correlation higher than 0.3; Liu and Zhu (2016) extracted Linguistic Representation Feature Vector (LRFV) from Sina Weibo based on deep learning, and built a personality prediction model with correlation between 0.3 and 0.5. In addition, Yu (2018) and Zhang et al. (2014) have made a detailed survey on personality recognition on social networks. AI and psychometrics have been merged in more fields from then on. Facial activities were used for automatic personality (Xu &Tian et al., 2021) and emotion recognition; Gait was used to predict personality, emotion and mental health (Wang et al., 2021); facial videos were used for...
identifying personality (Cai et al., 2022), decision-making style (Guo et al., 2022) and mental health (Wang et al., 2020), etc.

2.2 Micro-expression detection
In the past decade, Micro-expression research has gradually been paid more attention. By combining computer science and psychology, researchers expected to detect and recognize Micro-expression automatically. Micro-expression could help people identify hidden emotions more effectively. At present, there are two commonly used spontaneous Micro-expression databases established by Chinese scholars. One is CASME series (Yan et al., 2013; Yan et al., 2014; Qu et al., 2018) published by Institute of Psychology, Chinese Academy of Sciences. The other is MMEW (Ben et al., 2021) published by Shandong University. Chinese researchers have proposed a variety of Micro-expression detection algorithms, including the convolutional neural network (MESNet) for multi-scale detection of micro-expression fragments in long videos (Wang et al., 2021), the two-flow convolutional neural network (Yu et al., 2021), the spatiotemporal convolutional attention neural network (Pan et al., 2021), and the LSTM network based on optical flow (Ding et al., 2019), etc.

2.3 Identifying psychological symptoms for diagnosis
Behavior clues recorded quantitatively and objectively are valuable for psychological symptoms recognition and diagnosis. With the help of intelligent wearable devices and behavioral detecting devices, individual daily behavior, such as text expression, facial movement, gait, voice, and so on, could be detected and recorded digitally. Chinese researchers have developed a series of psychological symptom recognition and diagnosis methods, which is independent of the patient’s self-report (Li Yang et al., 2017; Wang et al., 2019; Wang et al., 2020; Di et al., 2021). For example, researchers have found that voice features can effectively distinguish MDD and physical disease patients, and acoustic features including loudness, MFCC5 and MFCC7 could be used to identify depression with fairly well performance (Wang et al., 2019).

2.4 Online social events monitoring
Given that social media data is in large scale with timestamps, the public mood and social events trend could be detected by combining psychology with big data technology, which is important for public management (Xia et al., 2015). Yu (2013) took Baidu search terms to analyze the hot public opinion in China. Li et al. (2014) built a text mining model for identifying online public opinion. Chu and Zhu (2017) built emergency network public opinion warning system by using big data analysis technology with high performance.

2.5 Human-computer interaction
The development of human-computer interaction is driven by AI technology. Chinese researchers have made outstanding contributions in this fields. Specifically, a series of research have been conducted in voice interaction, pen/gesture interaction, emotional cognitive computing, multi-channel perception, and behavior analysis. These technologies help application systems responding to user’s efficacy and emotional needs more effectively, which can improve the interaction quality and user experience (Fan et al., 2019).

2.6 Mental health services
Nowadays, mental health services are in great need in China. At present, there are some problems such as high cost and less psychological counseling services available. There are a huge demand for psychological health services such as “self-regulation” (Jin et al., 2022). Many researchers have focused on developing VR-based psychological self-help technology (Li J et al., 2022; Zhang et al., 2022). In addition, taking advantage of the convenience of network information, the relevant psychological service resources could be pushed actively after mental health screening. Liu et al. (2019) proposed Proactive Suicide Prevention Online (PSPO) method. After identifying the suicidal ideation of social media users proactively, psychological crisis intervention resources would be provided through the Internet in time.
Remote mental health services play an important role in dealing with major public health events. In COVID-19, remote psychological services launched by many universities and psychological institutions have provide timely assistance to people with severe psychological problems. Online cognitive behavioral therapy for depression, anxiety and insomnia has been implemented as well (Liu et al., 2020).

3 The future development trend of Psychology + AI in China

In the future, deepening Internet mental health service can make up the shortage phenomenon of medical resources in China. It is necessary that exploring the cognitive neural mechanism and computational modeling technology of complex behavior in-depth. Combing psychology and AI would obtain important breakthroughs in interpersonal communication, perception and cognition, and behavioral control.

4 Conclusion

It is very important to get more from brain science and psychology to help the improvement of AI algorithm. With the rapid development of AI, psychological research will be further expanded in its depth and breadth. Given that interdisciplinary is the inevitable, we believe that psychology and AI will develop and improve together in China.

References


Psychology + Artificial Intelligence cont.


Ageing Psychology in China

Buxin Han, PhD & Professor of Psychology

Ageing population in China

China has the largest population (1.41 billion), and aged population (0.28 billion over 60 years old) as well, in the end of 2022 according to the National Population Census (National Bureau of Statistics of China, 2023). The population of people over 60 years old in China is projected to reach 402 million (28% of the total population) by 2040 (WHO, 2020). There are three prominent features of aging population in China. One is that the speed of population ageing (e.g., percentage of 65 years old population double from 7% in 2000 to 14% in 2022 – 0.20 billion of elderly people over 65 years old now – more than the population of most countries in the world) is quicker than expected and much quicker than that of developed countries (this process takes normally over 100 years in European nations like France). The second feature is that the majority of elderly people live in rural areas. The third feature is that the development of economic status is not as quick as the population ageing. These challenge the social welfare system very much and make population ageing a big issue of societal development and harmony at four levels: individual, family, community, and society. Such a severe trend will become worse in addition to the decreasing birth rate – as shown in the National population census reports.

China also has long but continued history, so called 5,000 years before and after Christ, with at least 4,000 years written records. Given that societal system and doctrines varied along the history, filial piety holds for mainstream virtue in Chinese communities ever since Han dynasty, being one of the key virtues emphasized by Confucianism. This has been the best theory for human society and designed anthropology up to now. It means that Chinese concepts of person surpass the eco-centric and socio-centric self, although the integration of ego-centric self, socio-centric self, and cosmo-centric self are still on the way to go (Kirmayer, 2007).

Ageing psychology in China

Research and application of ageing psychology in China have begun in 1980s, when Professors Shuliang XU (1921 - 2005), Zhenyun WU (1937 - 2020), and Deming LI (1939 - ) in the Institute of Psychology, Chinese Academy of Sciences (IPCAS) initiated this area. Following their pioneering work on questionnaire development (especially the measurement of memory in both lab and clinical settings) and

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Ageing Psychology in China cont.

cognitive ageing study, generations of scholars have grown through postgraduate education, training, and application of ageing psychology. Research Centers on Aging Psychology developed around China: currently, there are two in Beijing (IPCAS and Beijing Normal University), one at Tianjin Normal University, and one at Nanjing Normal University, among many others.

For example, the Research Center on Aging Psychology of the CAS Key Lab of Mental Health in IPCAS has two labs led by Professors Buxin HAN (focuses on life span healthy development, including cognitive ageing, religious psychology, and mental health promotion based on traditional Chinese culture – e.g., Calligraphy, Tachichuan, etc) and Juan LI (focuses on ageing neuroscience and application in the community setting) as PIs. There are about 50 full-time graduate students for either MS or PhD, and about 150 part-time graduate students. Founding support came from institutions at levels of either national (e.g. China Natural Science Foundation, China Ministry of Science and Technology), ministerial (e.g., Chinese Academy of Sciences), provincial (Beijing), and institutional, which can be noticed through about 50 publications (in either Chinese or English) every year.

Psychological interventions integrated with both Chinese tradition and modern technology are developed for Chinese older adults. For instance, a combined intervention of aerobic exercise and 3-D video game is proven to be more effective than a single intervention for older adults. Neuroimaging studies indicated that aerobic exercising increased left hippocampal volume, while video-game training counteracted the decline of DMN functional connectivity with ageing (Cui et al., 2022).

Psychological support related to the ageing population has been provided mainly through the community, but also through the governmental system aiming for mental health promotion for retired people, elderlies in rural areas (especially for those left behind by their adult children who work in cities), as part of the national system of social service (Xinhua Press, 2022). Research provided theoretical support and empirical evidence to develop and modify effective community-based intervention programs. For instance, a Community-based multidomain intervention that included mindfulness meditation, cognitive training, exercise and nutrition counseling was proven to have an immediate and long-term benefit in improving cognitive performance in a 9-month intervention RCT of 209 older adults from 10 communities in Beijing (Liu et al., 2023).

Scientific research of ageing psychology covers almost all areas of psychology, e.g., neuroscience (via eye tracking, fMRI, ERP, etc.) of either normal and/or pathological ageing process (dementia, diabetes, hypertension, etc.), in frontiers of modern psychology at the international level. Colleagues are trying to integrate modern techniques, traditional mind-body interactive practice, and scholarly mental health promotion on a daily basis to prolong the ageing process and improve the quality of late life. For example, the mental flow that commonly emerges during immersion in mindfulness and artistic activities is beneficial for maintaining mental health. However, there is not that much converging neurobiological evidence about how flow emerges and elicits pleasure in practicing arts (poem, song, essays, calligraphy, painting, seal cutting, etc.). Using an imitation task of Chinese calligraphic handwriting with self-rated subjective flow experience, the neural interactions supporting flow were explored. It shows that calligraphic handwriting requires cooperation between widespread multimodal regions that span the visual and sensorimotor areas along the dorsal stream, the top-down attentional control system, and the orbito-affective network. This demonstrated that higher flow is characterized by an efficiently working brain that manifests as less activation, particularly in the brain regions within the dorsal attention network and functional connectivity between visual and sensorimotor networks in calligraphy. It was proposed that pleasure during calligraphy writing arises from efficient cortical activity in the emergence of flow, and the orbito-caudate circuit responsible for feelings of
Ageing Psychology in China cont.

affection. These findings provide new insight into the neuropsychological representations of flow through art and highlight the potential benefits of artistic activities to boost well-being, prosperity, and even flourishing (Wang et al., 2023)

Ageing psychology in Chinese cultural tradition

Filial piety has been the key component in Chinese culture and continuing to play an important role in contemporary Chinese societies (Yeh et al., 2013), as a joist in the frame of social system, typically emphasized and promoted by Confucius in ‘The Book of Filial Piety’. It has been normally the main part of personal reputation and included in the official evaluation for governmental officials and folk comments on any individual in community settings. Therefore, it is lifetime behavioral guidance.

There are designed rituals along with the doctrine, for the heritage of family tradition, especially during the funeral and yearly anniversary of the beloved departed in addition to July 15 of the Lunar Calendar as a special and nationwide tradition (tome visit when family reunion). In contradictory to Western views (e.g., Sigmund Freud) that the bond between deceased beloved ones as a form of unresolved grief, the reciprocity and connection between dead and living (as see in funerary rituals) continues and forms a foundation of family transfer and may benefit for the survivors’ mental adjustment (Lalande & Bonanno, 2006).

There are so many phenomena observed in history that became valid again in modern psychology, as indicated by the following couplets. The first couplets indicated the multi-memory system (namely, episodic memory impaired along with the ageing process, while semantic memory still works until very end of life) come from a poem written by poet Chenda FAN (1126 – 1193) in Song Dynasty, but written by calligrapher Shaoji HE in about 200 years ago.

Elders often forget in reading (episodic memory), but still have fancy sentences (semantic memory) after a cup of wine. Calligrapher, Shaoji HE (1799–1873)

Fortunate comes with cautious (brain, decision with good rationale), longevity goes with benevolence (heart, base for good relations). Painter and Calligrapher, Baishi QI (1864–1957)

The second couplets vividly compare function and outcomes of brain (rational decision making, luck comes from cautious) and mind (or heart as key concept of Chinese mental philosophy, which is focus of REN hence result in longevity).

Organizations of ageing psychology in China

There are three national organizations that have the division of aging psychology, namely the Chinese Psychological Society (founded by Professor Buxin HAN in 2014, currently the Division President is Professor Juan LI). CPS is affiliated with the IPCAS and is a research-oriented organization with 37 divisions and 12 working committees.

China Association of Gerontology and Geriatrics (CAGG). CAGG was founded in 1986, with 65 divisions. Its Division of Aging Psychology was founded
in 2000. Professor Buxin HAN was Division President from 2010-2018 and is currently the Vice President. Current President is Professor Dahua WANG from Beijing Normal University, and China Association for Mental Health has the Division of Elderly Mental Health, founded in 1989, which is mainly psychiatrists but some psychologists joined.

Ageing psychologists join the yearly convention of all three organizations, in addition to its division conferences every year or every two years.

Chinese ageing psychologists have had and welcome cooperating with international colleagues in all areas in the near future.

References


Biography of the author

Buxin Han is a professor of psychology at the Institute of Psychology, Chinese Academy of Sciences (IPCAS), Beijing, China. He received his doctorate in Psychology (IPCAS, 1993), research on the psychology of aging, cultural psychology of religion, and color perception. He has published over 200 scientific articles in either English or Chinese and is on the editorial boards of several key Chinese Journals. He was elected as Secretary-General (S-G, 2014-2018) and President of Division 7 (Cognitive Gerontology) of the International Association of Applied Psychology (IAAP), President (2019-2022) of the Asian Psychological Association (APsyA), President of the Chinese Psychological Society (CPS, 2018-2021), Vice-President of the China Association for Gerontology and Geriatrics (CAGG, 2016-2022). His contributions to many important academic events were highly recognized and hence he received the Distinguished Award issued by the International Union of Psychological Science (2004), China Associations of Science and Technology (CAST, 2006), and the IAAP (2018). He is active in Chinese and International academic organizations.
Health Psychology Division in China

Yiqun Gan

The Health Psychology Division of the Chinese Psychological Society was established in January 2021. As the first professional committee for health psychology in China, the division focused on health behavior promotion based on psychological theory. The aim and scope of the division are highly consistent with the three categories and 15 specific goals of the “Healthy China 2030 Initiative”. Specifically, the goals of the Health Psychology Division are: advancing contributions of health psychology to the fathoming of sickness and healthiness through basic and clinical research and education and service initiatives; encouraging the integration of biomedical information about health and illness with current psychological knowledge; informing the psychological and biomedical communities and the general public about the results of current research and service activities in this area.

Members of the division have been conducting an increasing number of high-quality academic research in the field of behavioral health, and the results have been published in international and domestic journals such as Annual Review of Psychology, Lancet Public Health, Health Psychology, and Annals of Behavioral Medicine. The division has also been regularly holding annual academic conferences and online seminars, in which the latest achievements in the field inside China are reported. Regarding public health emergencies such the COVID-19 pandemic, the division has been organizing online seminars and special issues in academic journals. For example, the division organizes online seminars and special issues in academic journals such as the special issue in Applied Psychology: Health and Wellbeing (2020), and hosts the online seminar for Journal of Pacific Rim Psychology (2021). In addition, the activities promoted by the division have been fostering the emergence of interdisciplinary collaboration among scholars in psychology, public health, medicine, sociology, and computer science.

In China, the practice of health psychology should serve the goals set forth in the “Healthy China 2030 Initiative.” Accordingly, the division was established with the aim to translate the achievements of our national research into practice and promote the development of public health nationwide. This aim was operationalized by conducting initiatives to optimize health management and health-related services, and assist in the formulation of relevant health standards and policies, as well as medical standards, on the national level. The intended outcome of these actions is to improve the life satisfaction and well-being of the Chinese people.

Furthermore, the division motivates professional courses in health psychology—which have been set up in many universities—to promote the popularization of public education and the training of professionals in the field of behavioral health. It has also collaborated extensively with international institutions, including the International

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Health Psychology cont.

Association of Applied Psychology (IAAP) and the American Psychological Association (APA), in several projects, and it continuously interacts with them.

In terms of future directions for health psychology studies, scholars should attempt to incorporate both subjective and objective indicators. For example, machine learning, cognitive neuroscience, and epigenetics have recently gained much popularity, and research adopting related approaches can bring innovation to the field. Further, the development and widespread use of wearable devices presents various challenges that require further research. Conducting individualized and digital intervention research with large samples could be important steps to enhance the translation of research into practice.
Economic Psychology
Xiaofei Xie

The exploration of Economic Psychology in China dates back to the 1990s. After nearly 30 years of investigation and practice, we now have a large number of outstanding scholars with solid theoretical foundation and rich research experience. They work in top universities and research institutions across China, committed to exploring the psychological mechanism behind economic behavior and psychological impacts of economic events. Their research involves decision-making and judgment, forecasting bias, economic behavior and its psychological mechanism, etc. Specifically, researchers in China had significant findings on topics including risk decision-making, intertemporal decision-making, charitable donations, behavioral game theory, neuroeconomics, and consumer behavior. These findings contribute to expanding the classic economic psychology theory, reveal human behavioral patterns in economic psychology in general, and at the same time focus on addressing practical concerns raised in relation to China’s economic and social development. To name a few, Shu Li and his team put forward the “Equate-to-Differentiate” approach of decision-making under risky situations; Xiaofei Xie and her team proposed a psychosomatic interaction efficacy model that focuses on the effect of the psychological system on the physiological system; Xinyue Zhou and her team focused on the psychology of money and its behavioral decision-making influences; Ziqiang Xin and his team focused on the relationship between wealth and happiness of Chinese people. This conference acts as an excellent academic exchange platform for researchers in the field of economic psychology. We welcome scholars from all over the world, especially young outstanding scholars, to come together, to connect, and to extensively exchange knowledge. Our goal is to jointly promote continuous innovation, application and development of economic psychology.

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Forensic Psychology

Ai Ma¹

In the 1920s, forensic psychology publications from western society have been translated and published in China, introducing the field to Chinese scholars. At the end of the 1970s, to deal with the high crime rate and to meet the needs of the legal and juridical departments, forensic psychology, as an individual field, started to develop fast under the umbrella of criminal psychology with government support.

Many achievements have been made within the following decade, including textbook compilation, teacher training, knowledge popularization, and academic group construction. Around 100 original and translated books and 3,000 articles have been published, and courses of criminal psychology have been comprehensively set up in schools of political sciences, laws and police.

With the developing fundament of research and practice, more and more discussions and studies have been conducted. Applied research combined with practical experiences has become common, and more and more international communication and cooperation have taken place. Studies on the causes of crimes, therapies for criminals, interrogation and interviewing psychology, police psychology, deception detection, etc., have been popularized based on the needs of Chinese society.

Nowadays, forensic psychology has constructed a training system that covers undergraduate, graduate, and post-graduate education. Many schools have their postdoctoral programs. Both forensic psychology and criminal psychology have been included in the first batch of China’s national interdisciplinary majors, which establishes a good foundation for the development of talents and policies.

To keep up with the fast pace of development, the future focus of forensic psychology and criminal psychology will not only be further studying law-abiding psychology and law-making psychology, but also entail encouraging interdisciplinary study methods, using technologies like artificial intelligence and big data to study the main issues in the field. The discipline will adhere to the problem-oriented essence of applied psychology while taking into account the legal requirements of fairness and justice, thus enhancing the value of the field throughout the development.

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Political Psychology

Yin Jiwu

Political psychology, as an inter-discipline field, has undergone rapid development in the recent 40 years since the establishment of reform and open-up policy in China. Most departments of political science teach course in the name of Political Psychology in Chinese universities, and they are divers in terms of the research approaches into the fields of political science, international relations and psychology. Chinese political psychologists published at least 3 textbooks in the past 10 years, and the authors included Ji Naili (2010), Yin Jiwu and Liu Xunlian eds., (2011) and Zheng Jianjun (2020). Regarding the methodology, qualitative approaches are very popular in Chinese International Relations studies, while the political scientists prefer quantitative approaches in combination with experimental methods, and the topics include public opinion, value measure, and Chinese governance. Most Chinese political psychologists have political science degrees, while only a small percentage of scholars received training in the department of psychology. In China, political psychology has been established as a formal sub-field either in the department of psychology or in the department of political science. Although the Chinese Associations of Political Science, International Studies and Psychology have not issued a division of political psychology, the Qualitative and Psycho-biography Committee, founded in 2018 and supervised by The Chinese Association of Psychology, initiates annual meetings and annual reviews of psycho-biography. In the field of political science and international studies, the political psychology conferences or seminars organized by several Chinese universities, such as the Annual Meeting of Political Science and IR sponsored by Tsinghua University. In addition, Nanjing University, Renmin University, Nankai University and the Chinese Academy of Social Science routinely organize workshops of political psychology every year. Chinese political psychologists publish leading journal articles, mainly in Chinese academic journals in political science, international relations, and psychology. They focus on diverse research themes, ranging from the political personality of national leadership to the political identity of Chinese network users. It is worth mentioning that more and more researchers in China prefer to communicate their studies with their English-writing counterparts by publishing articles in top journals including Political Psychology, and Political Analysis. To sum up, the Chinese scholars of political psychology focus on a broad range of issues including public opinion, national leadership decision-making, voting behavior, international conflict, Chinese governance, and public policy. The future development of Chinese political psychology may follow several approaches. One is strengthening communication between the psychologists with political scientists, especially introducing more leading methods in psychology to the field of political science. The other is further building institutions, including the Chinese Journal of Political Psychology, the Association of Chinese Political Psychology, and the Annual Meeting of Chinese Political Psychology. With the development of methodology and the new facts of Chinese politics and foreign affairs, the Chinese political psychology will contribute more original knowledge to the international academia.

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Brief Introduction to Sport and Exercise Psychology in China

Liwei Zhang, Ph.D., Ed.D.

The development of contemporary sport and exercise psychology in China began in the 1970s. Its landmark events include the following: In 1979, Sports Psychology Branch of Chinese Psychological Society was established; In 1980, Sports Psychology Branch of China Sport Science Society was established, and Professor Qiwei MA was the first president for both branches; In 2013, the 13th World Congress of Sports Psychology was held in Beijing Sport University, and Professor Gangyan SI of Hong Kong Sport Institute was elected the president of International Society of Sports Psychology (2013-2017). In 2014, Professor Liwei ZHANG of Beijing Sport University was elected the president of Asian and South Pacific Association of Sports Psychology (2014-2018).

The above two organizations do not have their own publications. However, they have regularly held sport and exercise psychology conferences, which include the “Chinese Sports Psychology Conference” and the “Chinese Athletes Psychological Training for Olympic Games” every four years, the “Exercise and Mental Health Conference” every two years, and the “Summer Seminars for Research Methods of Sport Sciences” every year.

The study of sport and exercise psychology in China can be divided into two major directions: sport psychology (for competitive sports) and exercise psychology. In the field of sport psychology, research topics include decision-making in sports, neural efficiency, Choking, self-control, attention control, mindfulness training, athlete career development and athlete growth, etc. In the field of exercise psychology, the research topics include the dose-response relationship of psychological benefits induced by exercise, the moderators between exercise and mental health, and the gap between exercise intention and exercise behavior. In terms of application work, as China’s competitive sports have been continuously supported by the whole-nation system, Chinese sport psychologists receive much funding from the central government in every Summer and Winter Olympic cycle for providing psychological services for national athletes and coaches.

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Traffic and Transportation Psychology in China

Yan Ge

In recent years, Traffic and Transportation Psychology has been developing vigorously in China. According to the search results from SCI-Expanded and SSCI databases of Web of Science platform under Clarivate Analytics, while Chinese researchers began to publish relevant articles late, its growth rate in this field is significantly higher than those of other countries, and it is becoming a new driving force in recent years. Tsinghua University, Tongji University, the Institute of Psychology of Chinese Academy of Sciences, Chang ‘an University, Wuhan University of Technology and other institutions have outstanding performance in this field.

Our research field mainly includes traffic accident causation and risk analysis, dangerous driving behavior and psychological factors, unsafe driving state analysis and improvement (including distracted driving, fatigue driving behavior analysis), elderly drivers’ driving performance and the relationship between diseases of the nervous system, automatic driving technology with human factors, etc.1

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Innovative Research of Engineering Psychology in China

Feng Du1,2, Yongjuan Li1,2, Pengye Zhu1,2, Shiyiu Zhang1,2, Yanci Liu1,3, and Yifan Wang1,2

Abstract

To promote dialogue with psychologists around the world, we introduce the brief history and recent innovative research of engineering psychology in China. The brief history of engineering psychology and education in China are first reviewed. Next, the results of a bibliography analysis of research papers published in eight top ergonomics journals during the past decade, are presented, highlighting a significant upward trend of researches on engineering psychology in China. Finally, innovative research on topics such as driving behavior, aviation safety, user experience, and senior-adaptable design, are reviewed.

Keywords: Engineering Psychology, Ergonomics, human factor, China

Along with growth in Chinese industries during more than 70 years, engineering psychology has developed rapidly, especially during the last decade. The present paper aims to introduce the development of engineering psychology in China and its recent innovative research to the audience around the world.

Development of engineering psychology in China

The engineering psychology in China can be traced back to early 20th century. Li Chen, a pioneer of engineering psychology in China, published the first monograph General Survey of Industrial Psychology in 1935. Chen discussed how luminance, noise, workload, fatigue, and accidents affect human performance in industry. In 1957, the Institute of Psychology of the Chinese Academy of Sciences set up the Engineering Psychology Research Group, and engineering psychology had become an important division of applied psychology. A variety of engineering psychology researches, mainly in aviation, transportation and nuclear power plant have been conducted during the last 50 years. Researchers not only worked at signal display studies of railroad lights, aircraft cockpits and electric power stations, but also carried out research on illumination standards for different sites, such as classrooms, industrial enterprises, and roads. Besides, studies on factory noise and aviation noise were also the research interest at that
Engineering Psychology cont.

time. These studies greatly promoted the development of engineering psychology in China.

The Institute of Psychology, the Chinese Academy of Sciences, the Institute of Aerospace Medical Engineering, Hangzhou University (now Zhejiang University), Tongji University and other institutes contributed a lot to the development of Engineering Psychology and its education. In addition, Chinese Psychological Society formally set up the Engineering Psychology Division in 2013.

Innovative researches of engineering psychology in China

The last decade was a blooming decade for engineering psychology in China, based on our analysis of the research articles and review articles from eight top ergonomics journals (see Table 1). These eight ergonomics journals, according to Journal Citation Reports, were selected as they were or are currently in the Q1 classification at least once during the last decade (2012-2022). These eight ergonomics journals cover most important research areas of engineering psychology and human factor, such as Human-Computer Interaction, human performance in human-machine system, the safety and efficiency of human-machine system including road traffic, railway, aviation and nuclear power plant. Then, articles from Chinese institutions (including mainland of China, Hong Kong, Macao, and Taiwan) from these eight journals, based on the web of science core collection, were included during 2012-2022 and it was executed on 12/06/2022. Finally, 1,604 articles were included after excluding the editorial material and corrections.

As shown in Table 1, Accident Analysis and Prevention published the largest amount of paper from China-based institutions, and the International Journal of Human-Computer Interaction had the highest proportion of publications by China-based authors in the field.

Table 1. Selected Journal and included corresponding articles quantity.

<table>
<thead>
<tr>
<th>Journal Name</th>
<th>Coverage</th>
<th>IF 2022</th>
<th>Total published articles</th>
<th>Included articles</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCIDENT ANALYSIS AND PREVENTION</td>
<td>accidental injury and damage</td>
<td>6.376</td>
<td>3887</td>
<td>700</td>
<td>18.01</td>
</tr>
<tr>
<td>APPLIED ERGONOMICS</td>
<td>practical applications of ergonomic</td>
<td>3.940</td>
<td>2231</td>
<td>206</td>
<td>9.23</td>
</tr>
<tr>
<td>ERGONOMICS</td>
<td>physical, cognitive, organisational and environmental ergonomics</td>
<td>2.561</td>
<td>1700</td>
<td>172</td>
<td>10.12</td>
</tr>
<tr>
<td>HUMAN FACTORS</td>
<td>human factors/ergonomics</td>
<td>3.598</td>
<td>1137</td>
<td>48</td>
<td>4.22</td>
</tr>
<tr>
<td>INTERNATIONAL JOURNAL OF HUMAN-COMPUTER INTERACTION</td>
<td>the cognitive, creative, social, health, and ergonomic aspects of interactive computing.</td>
<td>4.920</td>
<td>1396</td>
<td>305</td>
<td>21.85</td>
</tr>
<tr>
<td>INTERNATIONAL JOURNAL OF HUMAN-COMPUTER STUDIES</td>
<td>the theory and practice of innovative interactive systems</td>
<td>4.866</td>
<td>921</td>
<td>66</td>
<td>7.17</td>
</tr>
<tr>
<td>JOURNAL OF SAFETY RESEARCH</td>
<td>all areas of safety and health, including traffic, workplace, home, and community</td>
<td>.264</td>
<td>947</td>
<td>102</td>
<td>10.77</td>
</tr>
<tr>
<td>NEW TECHNOLOGY WORK AND EMPLOYMENT</td>
<td>Work, Employment and Resistance in Transportation Platforms</td>
<td>4.182</td>
<td>247</td>
<td>5</td>
<td>2.02</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>/</td>
<td>/</td>
<td>12466</td>
<td>1604</td>
</tr>
</tbody>
</table>

Note: Total published articles: Editorial material, corrections, book, reference material, retraction, and biography, etc., are excluded.
Engineering Psychology cont.

As shown in Figure 1, we also analyzed the included paper by their year of publication. From 2012 to 2022, the publication volume from Chinese institutes in the selected ergonomics journals generally kept increasing with an average annual growth rate of nearly 15%, with two surges in 2019 and 2021. (Noted that publication data from 2022 was incomplete when the paper was prepared, the China-based publication should be more than 266).

Table 2 lists the top 10 Chinese academic institutions which published the most articles in the selected ergonomics journals during the last decade. Since ergonomics journals published multi-discipline papers, the top 10 institutes include not only psychology institutes, but also departments of computer science, engineering and biology.

Studies on traffic safety in China

A research group from the Institute of Psychology, from the Chinese Academy of Sciences, focuses on Chinese’ Driving behavior. They conducted a series of psychometric studies, measuring drivers’ driving styles (Qu et al., 2014; Wang et al., 2018), psychological characteristics in driving (Ge et al., 2015; Ge et al., 2016; Qu et al., 2016), and driving skills (Xu et al., 2018). In addition, they also explored the relationship between personality and types of driving behaviors, such as accident involvement (Yang et al., 2013), dangerous driving behavior (Ge et al., 2014), as well as prosocial and aggressive driving behavior (Shen et al., 2018).

With the rapid increase in air traffic volume in recent years, there is a growing need to improve aviation safety. Chinese researchers are exploring this topic by combining behavioral studies and computational modeling approaches. Specifically, Zhang and Du (2015) utilized a relational complexity network (RCN) approach to model the mental workload of air traffic controllers (ATCos). Their model considered factors such as traffic complexity, the properties of nodes (aircraft), and links (aircraft relations) to predict the overall mental workload of ATCos. Zhang et al. (2015) based on RCN discovered that network centralization could effectively predict ATCos workload in both dynamic and static conflict detection tasks. They identified two main conflict resolution principles: the central-available-node-first principle and the marginal-effort-decrease principle. In addition, the network disentangling framework was extended from previous RCN approaches to provide an explanation for the conflict resolution behavior of professional ATCs(Zhang et al., 2021). E and Zhang (2017) suggested that the thinking style of ATCos can influence conflict resolution, with those who think holistically being more likely to intervene. Moreover, recent research by Qiao et al. (2022) demonstrated that ATCos’ affective experiences, such as peak-end effects, can

![Figure 1. Selected Journal and included corresponding articles percentage](image-url)

<table>
<thead>
<tr>
<th>Count</th>
<th>Centrality</th>
<th>Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.43</td>
<td>Tsinghua University</td>
</tr>
<tr>
<td>2</td>
<td>0.17</td>
<td>Tongji University</td>
</tr>
<tr>
<td>3</td>
<td>0.19</td>
<td>Southeast University</td>
</tr>
<tr>
<td>4</td>
<td>0.24</td>
<td>Hong Kong Polytech University</td>
</tr>
<tr>
<td>5</td>
<td>0.07</td>
<td>City University Hong Kong</td>
</tr>
<tr>
<td>6</td>
<td>0.1</td>
<td>Beijing Jiaotong University</td>
</tr>
<tr>
<td>7</td>
<td>0.05</td>
<td>Cent South University</td>
</tr>
<tr>
<td>8</td>
<td>0.05</td>
<td>University Hong Kong</td>
</tr>
<tr>
<td>9</td>
<td>0.13</td>
<td>Zhejiang University</td>
</tr>
<tr>
<td>10</td>
<td>0.11</td>
<td>Chinese Academy of Sciences</td>
</tr>
</tbody>
</table>

Table 2. Top 10 Chinese institutions in Ergonomics research
significantly influence their subjective mental workload ratings. This finding suggests that practitioners should consider the temporal distribution patterns of task demands when designing effective work practices.

Studies on user experience

4.1 Users’ Acceptance

Acceptance refers to individual’s positive attitudes towards products or technologies (Chen & Chan, 2014) and individual’s willingness to use or buy products (Lowry et al., 2013; Wang et al., 2015), such as autonomous vehicles (Liu et al., 2019), online meeting platforms (Wu & Yu, 2022), and virtual reality technology (Chen et al., 2022).

In recent years, Chinese researchers have been highly interested in users’ acceptance of emerging technologies such as autonomous driving, live streaming, and AI, and willingness to use related products. (Luo et al., 2022) showed that Chinese public trusted autonomous vehicles (AVs) moderately and held a positive implicit attitude toward AVs through laboratory experiment. This result is consistent with a previous study that used the Chinese version of the automated vehicle acceptability scale and reveal an overall explicit positive attitude toward AVs (Qu et al., 2021). Additionally, young employees in China have a positive intention to work with robots in the hotel industry if this partnership satisfies their hedonic and utilitarian motivations (Ali et al., 2023). Some researchers tried to explore consumers’ buying behavior in live streaming commerce. (Li & Peng, 2021) found that live streamer characteristics, such as trustworthiness and attractiveness, can stimulate users’ emotional attachment to a live streamer, thus promoting users’ gift-giving intention.

4.2 Design and improvement

Chinese researchers have shown a particular interest in modeling the behavior and experience of users to improve interaction design. Fitts’ law, a well-established principle in human-computer interaction, has been used to predict reaction time. Deng et al. (2019) proposed a three-phase model, based on the logarithmic function, to predict the movement time of positioning tasks in a 3D virtual environment. Hou and Chen (2020) demonstrated that Fitts’ law can also be applied to predict eye-based selection time in virtual reality. In addition, Chi et al. (2017) evaluated the pleasantness of four vehicle sounds by modeling the relationship between the sound pleasantness and the sound loudness, pitch, and tempo. Their finding of an inverted U function between sound pleasantness and sound physical parameters reminds designers of using moderate sound values.

The continuous innovation of smart devices’ functional experience is dependent on in-depth user research. Researchers from the Institute of Psychology at the Chinese Academy of Sciences have carried out extensive research to support this effort. Zhao et al. (2017) evaluated the impact of loading screen type and loading time on users’ duration perception and satisfaction with a smartphone application. The results showed that the estimated duration of the loading process increased with longer loading times, leading to a decrease in user satisfaction. Additionally, the animation loading screens, compared to black loading screens, prolonged the estimated duration and further diminished user satisfaction. Li et al. (2023) conducted a study to compare the task-induced fatigue and emotional experience of three touch screen gestures in a name-locating task on a mobile phone. The study found that the alphabetic index gesture outperformed both sliding to scroll and moving a regular scrollbar. Additionally, researchers have investigated the impact of vibrotactile and tactile feedback on smartphone user experience. These studies have revealed that higher intensity, frequency, and amplitude of vibrations are associated with increased user satisfaction (Cai et al., 2019; Tan et al., 2019).

Overall, these studies demonstrate the importance of human-centered design in the development and evaluation of products. By prioritizing user satisfaction and incorporating user feedback, enterprises
can improve the overall quality and appeal of their products.

**Studies on Senior-adaptable**

As the aged population in China increases, Chinese researchers have become increasingly interested in studying how seniors adapt to emerging computer technologies and social changes.

One major part of studies mainly investigates seniors’ acceptance of new information technology products and attitudes toward online social services (e.g., mHealth). Studies in the early stage of the last decade mainly focused on senior users’ attitudes toward daily information products, such as attitudes to mobile instant messengers (Chou & Liu, 2016), smartphones (Ma et al., 2016), and communication applications (Zhou et al., 2017), etc. A highly cited article, for instance, used a structural equation model to explore the key antecedent factors for the Chinese elderly to accept smartphones (Ma et al., 2016). In recent years, however, researchers paid more attention to senior users’ acceptance of smart wearable systems (Li et al., 2019; Ma et al., 2022) and virtual reality (Xu et al., 2022).

A number of studies have emerged in recent years that utilized or created new elderly-oriented product design to improve older adults’ daily lives. For example, a group of researchers from the Institute of Psychology, Chinese Academy of Sciences have looked into the senior users’ learning (Li et al., 2022), performance, and experience (Jiang et al., 2022) of different swiping gestures on mobile phones. In addition, Zhou, J. and colleagues, a group of researchers from Chongqing University, have been working on senior-friendly designs for many electronic products, such as smart TV (Ouyang & Zhou, 2019), screen mirroring (Ouyang et al., 2021), smartphone apps (Zhou et al., 2022). Asghar et al. (2020) developed a software application with multiple functionalities to meet the daily life requirements of people with dementia. Kang et al. (2022) designed a tabletop display system called “Reading to Sharing” to enhance nursing home residents’ public reading experience, and thus improve their social interaction. An et al. (2022) proposed the ALBERT Based Text Extraction Network (ABTE-NET) to organize older adults’ life stories and generate valuable event timelines so that caregivers can better understand the elderly.

**Studies on Nuclear Power Plant**

6.1 Intention and Acceptance of NPP

To cut greenhouse gas emissions and improve the energy mix (Yang et al., 2022), China becomes the most ambitious nuclear energy nation (Wu, 2017). In recent years, China has the most nuclear reactors under construction (IAEA, 2023). Meanwhile, the Fukushima nuclear accident in March 2011 reminds us of how crucial safety is to the sustainability of the nuclear industry.

Public acceptance (PA) of nuclear energy become another primary concern of Chinese due to the impact of Fukushima nuclear accident. In general, Chinese still take relatively optimistic attitude toward nuclear energy compared to other countries (Wu, 2017). However, several surveys the locals during the construction of Haiyang Nuclear Power Plant (NPP) revealed that more than half of participants had the negative or noncommittal attitudes toward NPP construction around home (He & Lü, 2013; He et al., 2014; Wu, 2017). Nevertheless, timely and transparent information about nuclear safety, adequate public communication and risk management are crucial to maintain the nuclear energy’s sustainability.

6.2 Individual difference and operators’ evaluation

Main control rooms (MCRs) operators play a crucial role in ensuring the safety of nuclear power. To examine the effect of operators’ individual difference on safety performance, a research group from Institute of Psychology, Chinese Academy of Sciences conducted a serial of studies testing real NPP operators. They found that general mental ability at both individual and team level (Zhang, Li, et al., 2013), dispositional mindfulness (Zhang, Ding, et al., 2013; Zhang
Engineering Psychology cont.

& Wu, 2014), perceived risk (Rao et al., 2017) are significant predictors of safety performance (i.e., safety compliance and safety participation). They proposed the dual-process model to assess operators, which suggests that “human behaviors are determined by both controlled and automatic cognitive processes” (Y. S. Xu et al., 2014). The results revealed that implicit safety attitude contributes uniquely to their safety performance beyond explicit safety attitude (Y. S. Xu et al., 2014). Attentional bias toward safety, another implicit construct, is also found to be positively associated with safety performance (Y. Xu et al., 2014). Moderators such as working experience (Zhang & Wu, 2014), inhibitory control (Y. S. Xu et al., 2014), and leader support (Rao et al., 2017) were investigated simultaneously. All these findings have broadened the perspectives of operators’ evaluation and successfully guided the practice of psychological assessment of Chinese NPP operators.

In summary, engineering psychology has developed rapidly in China, especially in the last two decades. The engineering psychology researches not only promote the theoretical works but also contribute greatly to many aspects of Chinese industry and people’s daily life.

References


Engineering Psychology cont.


Biography of the first author

Feng Du, Ph.D. Professor of Psychology at Institute of Psychology, Chinese Academy of Sciences, Beijing, China. He received his Ph.D. from Washington University in St. Louis in 2010 and did his post-doc research at University of North Carolina at Chapel Hill. Currently, he is the associate director of Social and Engineering Psychology Division at Institute of Psychology, the President of Engineering Psychology Division of Chinese Psychological Society (2021-2024), an Editorial Board member of Acta Psychologica Sinica (Chinese) and Advances in Psychology (Chinese). His research interests include Engineering Psychology, Cognitive Psychology, and Cognitive Neuroscience.
The Open Neuroimaging Projects in China

Bin Lu1,2#, Qing-Lin Gao3#, and Chao-Gan Yan1,2,3,4*

Abstract

Neuroimaging has emerged as a crucial non-invasive technique for studying the human brain, allowing researchers to explore its function and structural connectivity from a fresh perspective. This has led to numerous breakthroughs in neuroscience, psychiatry, neuroimaging, psychology, and other related fields. The widespread development and availability of neuroimaging technology has led to the accumulation of significant amounts of neuroimage data from China and around the world, which has given rise to many open neuroimaging projects and datasets. These open brain neuroimaging projects are fast becoming a leading-edge field in life science in the 21st century, offering scientists greater reproducibility and verifiability in their research and improving the overall quality of scientific inquiry. China has gradually increased its involvement in neuroimaging research and has amassed a range of open big neuroimaging datasets. In this article, we provide a summary of these datasets and projects in China, along with a glimpse of the prospects for future development, which may be useful to researchers in this field.

Keywords: Chinese population, Neuroimaging, MRI, MEG, PET

Open big neuroimaging datasets are essential for furthering our knowledge of the brain and its functions. By providing a large and varied set of data, researchers and scientists can use these datasets to train and validate machine learning algorithms, develop neuroimaging biomarkers, and test hypotheses about brain structure and function as well as brain disorders. Moreover, open datasets allow for increased collaboration and sharing of discoveries, resulting in faster advancement in the field. Furthermore, the usage of open datasets encourages transparency and reproducibility in scientific research, helping to build trust in the findings and ultimately improving the overall quality of scientific work. There are many open big neuroimaging projects from the international research community, e.g., Functional Connectomes Project (FCP) (Biswal et al., 2010), Human Connectome Project (HCP) (Marcus et al., 2013), BRAIN (Alivisatos et al., 2013), UK-Biobank (Miller et al., 2016), Adolescent Brain Cognitive Development (ABCD) (Jernigan et al., 2018) and Alzheimer’s Disease Neuroimaging Initiative (ADNI) (Weber et al., 2021). It is of great importance to note that China has been at the forefront of promoting open science in neuroimaging, with numerous Chinese neuroimaging projects being developed to provide public shared databases. These databases vary in terms of population groups, technology modules, and the particular problems they are intended to solve. We have provided a detailed overview of several representative databases from China. (See Table 1).

The R-fMRI Maps Project and Brain Imaging Sharing Initiative

The R-fMRI Maps Project encourages people to share a broad array of resting-state fMRI indices through a

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# Bin Lu and Qing-Lin Gao contributed equally to this work.
standard processing pipeline built in DPABI/DPARSF (Yan et al., 2016). The R-fMRI Maps project was designed to address the concerns about privacy and storage consumption by only sharing the final R-fMRI indices, which only need light data storing/uploading requirements, and removed the privacy concerns on raw data. To date, this project has shared R-fMRI indices from 4770 subjects and has been downloaded by more than 593 researchers. A more functional platform derived from this project called the Brain Imaging Sharing Initiative (BISI) which has been developed based on XNAT (https://xnat.org). The BISI platform inherits the result sharing mode from the R-fMRI Maps Project where users can selectively share only final result files processed by DPARSF or DPABISurf. By sharing the processed R-fMRI indices, the projects removed the barriers of computational resources as well as analytic knowledge for the users, thus allows a wider scientific community (especially for machine learning experts) to join in the endeavor of understanding the brain. (Website: http://rfmri.org/maps, http://bisi.org.cn)

DIRECT Consortium and the REST-meta-MDD Project

The Depression Imaging Research ConsorTium (DIRECT) was initiated in 2017 to address the limited sample size issue in depression neuroimaging research. Through a series of meetings, a group of 17 participating hospitals in China agreed to establish the first project of the DIRECT consortium, the REST-meta-MDD Project, and share 25 study cohorts, including R-fMRI data from 1300 MDD patients and 1128 normal controls. Based on prior work, a standardized preprocessing pipeline adapted from Data Processing Assistant for Resting-State fMRI (DPARSF) (Yan et al., 2016) was implemented at each local participating site to minimize heterogeneity in preprocessing methods. The project showed that collecting R-fMRI data from multiple sites through standardized processing protocols can address a simple but surprisingly controversial theme: reduced but not increased functional connectivity within the default mode network (DMN) in depression(Yan et al., 2019).

Through the endeavor of DIRECT, researchers hope to accelerate the translation of functional neuroimaging findings to clinical use, such as evaluating longitudinal effects of antidepressant medications and developing individualized neuromodulation targets, while building an open repository for the scientific community(Chen et al., 2022). The DIRECT phase I data from the REST-meta-MDD project was publicly available now. (Website: http://rfmri.org/REST-meta-MDD)

REST-meta-PD

The REST-meta-PD project shared raw resting-state fMRI data from 15 cohorts of Parkinson’s disease (PD) patients and matched NC participants. A meta-analysis of the amplitude of low frequency fluctuations (ALFF) on 376 patients with PD and 311 healthy controls was performed based on this project (Jia et al., 2021). This study provided methodological evidence for the high false positive rate, low reproducibility, and poor generalizability in single cohort studies. Besides, it demonstrated the potential diagnostic value of the brain imaging marker normative charts at the individual level.

(Website: https://www.sciencedirect.com/science/article/pii/S2095927321004126)

The Consortium for Reliability and Reproducibility

The Consortium for Reliability and Reproducibility (CoRR) seeks to develop a resource for open research that will assist the neuroimaging community in evaluating test-retest reliability and reproducibility for functional and structural connectomics (Zuo et al., 2014). R-fMRI and diffusion imaging data from laboratories around the world has been aggregated and 5093 R-fMRI scans of 1629 individuals from international sites were finally shared by CoRR. The data is available at International Neuroimaging Data-Sharing Initiative (INDI).

(Website: http://fcon_1000.projects.nitrc.org/indi/CoRR/html/index.html)
Chinese Color Nest Project

The Chinese Color Nest Project (CCNP) aims at collecting large-scale (1200 participants) lifespan data of the human brain and behavior from China via a cross-sectional and longitudinal mixed sampling design or accelerated longitudinal design over 10 years (2013 - 2022) (Zuo et al., 2017). The long-term goal of CCNP is to create neurobiologically sound developmental curves for the brain to characterize phenomenological changes associated with the onset of varying forms of mental health and learning disorders, as well as to predict the developmental status (i.e., age-expected values) of an individual brain's structure or function. The first phase CCNP focuses on the development of school-age children in Beijing and Chongqing.

(Website: http://deepneuro.bnu.edu.cn/?p=163)

The Alliance for Preclinical AD and Sino Longitudinal Study on Cognitive Decline

The Alliance for Preclinical AD in China was launched in 2017 aiming to explore the genetic, clinical, neuroimaging, and biochemical biomarkers for the early detection and tracking of AD from the longitudinal perspective (Li et al., 2019). It is a national multicenter research platform which includes more than 200 member hospitals/research institutes across China. Standard operating procedures and quality control are developed to applied in all sites. The Sino Longitudinal Study on Cognitive Decline (SILCODE) study is to estimate cognitive decline and build statistical prediction models in elderly Chinese people based on the Alliance for Preclinical AD. Within SILCODE, clinical and neuropsychological data, blood samples, multimodal MRI scans, PET images and optional glucose metabolism are collected. To date, it has been collected approximately 800 subjects, covering the whole spectrum of AD diseases, which lays a solid foundation for understanding the AD characteristics of the Asian population.

(Website: http://www.alzheimer.org.cn)

Southwest University Adult Lifespan Dataset

Southwest University Adult Lifespan Dataset (SALD) is a pioneer large-scale cross-sectional multi-modal sample (n = 494; age range = 19-80) (Wei et al., 2018). The goals of the SALD are to enable researchers to map the structural and functional changes the human brain undergoes throughout adulthood and to replicate previous findings. SALD facilitated developmental neuroscience studies to uncover the developmental trajectory of the human brain and understand the changes that occur as a function of aging. Understanding the mechanisms of aging will help the scientific community move closer to discovering the causes of nervous system diseases related to aging.

(Website: http://fcon_1000.projects.nitrc.org/indi/retro/sald.html)

The Southwest University Longitudinal Imaging Multimodal Study

The Southwest University Longitudinal Imaging Multimodal (SLIM) study is to investigate the test-retest reliability and repeatability of correlations between brain function and behavior using a large sample, long-term longitudinal design, and a narrow age span. The SLIM dataset offers a collection of structural, diffusion, and resting-state functional MRI images as well as extensive behavioral assessment including demographic, cognitive, and emotional data within three and a half years period.

(Website: http://fcon_1000.projects.nitrc.org/indi/retro/southwestuni_qiu_index.html)

The Beijing Aging Brain Rejuvenation Initiative

The Beijing Aging Brain Rejuvenation Initiative (BABRI) was a community-based cohort study launched in 2008 by Beijing Normal University and focused on cognitive aging and brain health (Yang et al., 2021). BABRI has recruited more than 10,000
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participants and 20% of these participants have had at least one follow-up at intervals of two or three years. Comprehensive measurements including MRI and PET brain scans were acquired. BABRI has been used to establish norms for cognitive aging in the Chinese population, revealing the prevalence and risk factors for mild cognitive impairment and developing prevention and management strategies for dementia.

(Website: https://alz-journals.onlinelibrary.wiley.com/doi/10.1002/alz.12326)

**Chinese Human Connectome Project**

A new set of large multimodal neuroimaging, behavioral and genetic data sets for the Chinese population has been established by the Chinese Human Connectome Project (CHCP), highly consistent with the research procedures of the Human Connectome Project (HCP) in America (Yang et al., 2020). CHCP is committed to the cultural difference between China and the West, especially the language function. The project accumulates a large multi-module neuroimage dataset of the language function of the lifelong development of healthy people in China. At present, the data collection of brain structure and brain function in language processing of 1000 Chinese cases has been completed. The corresponding multi-modal neuroimage database of the Chinese language function is open and shared. The project has established a new set of open resources of Chinese human brain imaging, and revealed both commonalities and distinctions in brain structure and function between China and the West at a large scale (Ge et al., 2022).

(Website: https://www.chinese-hcp.cn/#/home)

**Chinese Imaging Genetics**

Chinese Imaging Genetics (CHIMGEN) was designed to collect blood samples, brain images, behavior records, and environmental data from more than 10000 healthy young Han Chinese people and is the biggest healthy young Han Chinese people neuroimaging-gene-behavior-environment project in the world (Xu et al., 2020). At present, more than 7000 healthy Chinese Han participants have been collected in the project. These micro-environmental and macro-environmental measurements based on integrated cohorts can facilitate a cross-ethnic and cross-geographic understanding of the human brain. This project was launched in November 2015. More than 200 researchers in 30 sites were enrolled in the projects.

(Website: http://chimgen.tmu.edu.cn/en/index.php)

**The Human Brainnetome Atlas**

The Human Brainnetome Atlas is a brain atlas containing comprehensive structures and fine-grained parcellations (Fan et al., 2016). Novel methodologies and computerized brain mapping techniques were utilized to develop this multimodal connectivity-based parcellation framework. The derived subregions in this atlas were characterized by their anatomical and functional connectivity patterns and activations in task-based MRI. A well-organized interactive website containing all the brain structures with the related behavioral domains were developed for researchers to explore this atlas.

(Website: https://atlas.brainnetome.org)

**Chinese2020**

The majority of brain atlases are derived from the western population. This poses a limitation for scientific studies on Eastern subjects. The Chinese2020 project provided 12 brain atlases for different ages and genders based on anatomical MRI from 2020 Chinese adults (Liang et al., 2015). Compared with MNI152 template which was derived from the western population, the Chinese2020 atlas showed higher accuracy in hippocampus segmentation and smaller registration deformations.

(Website: http://www.chinese-brain-atlases.org)
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SMN4Lang

A high-quality multimodal neuroimaging dataset for studying brain language processing named synchronized multimodal neuroimaging dataset for studying brain language processing (SMN4Lang) has been established, which contains functional magnetic resonance imaging (fMRI) and magnetoencephalography (MEG) (Wang et al., 2022). Data collection was based on the 12 healthy volunteers while the volunteers listened to 6 hours of naturalistic stories. SMN4Lang is very suitable for studying the dynamic processing of language comprehension and can be used as a brain benchmark for evaluating and improving computational language models.

(Website: https://openneuro.org/data-sets/ds004078/versions/1.0.4)

Chinese Brain PET Template

A new Chinese-specific PET template was established based on 116 [18F]-fluorodeoxyglucose ([18F]-FDG) PET images of normal participants (Wang et al., 2021). The effectiveness of this template for analyzing brain dysfunction has been validated in the analysis of patients with Alzheimer's disease (AD) and Parkinson's disease (PD). It can accurately depict the disease-related brain areas with abnormal [18F]-FDG uptake.

(Website: https://www.nitrc.org/projects/cnpet/)

In conclusion, the effort of open neuroimaging projects in China is still increasing, and will play a significant role in advancing brain research and understanding of the human brain. These initiatives provide researchers and scientists with vast and varied data sets that can be used to gain a better insight into how the brain works and develops. These comprehensive multiscale data make it possible for researchers to find accurate and stable neuroimaging biomarkers of neuropsychiatric disorders, which can shed new light on the diagnosis and treatment in clinical practice (Linden, 2012). These projects will not only help to establish China as a leader in the field of neuroimaging, but will also contribute to the global effort to advance our understanding of the brain.
### Table 1 Comparisons of major neuroimaging cohorts in Chinese

<table>
<thead>
<tr>
<th>Project name</th>
<th>Number of subjects</th>
<th>Age range (year)</th>
<th>Diagnosis</th>
<th>Neuroimaging modalities</th>
<th>Additional statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-fMRI Maps and BISI</td>
<td>4770</td>
<td>8-85</td>
<td>Mixed</td>
<td>rfMRI</td>
<td>The largest MDD R-fMRI database (1,300 patients with MDD and 1,128 healthy controls).</td>
</tr>
<tr>
<td>DIRECT and REST-meta-MDD</td>
<td>2428</td>
<td>12-82</td>
<td>Mixed</td>
<td>rfMRI and T1W</td>
<td>376 patients with PD and 311 healthy controls.</td>
</tr>
<tr>
<td>REST-meta-PD</td>
<td>687</td>
<td>49-76</td>
<td>Mixed</td>
<td>rfMRI</td>
<td>Establish test-retest reliability as a minimum standard for methods development in functional connectomics.</td>
</tr>
<tr>
<td>CoRR</td>
<td>1629</td>
<td>6-88</td>
<td>Healthy</td>
<td>sMRI, rfMRI</td>
<td>Three phases: developing: (devCCNP: 6–18 years, N = 480), maturing (matCCNP: 20–60 years, N = 560) and aging (ageCCNP: 60–84 years,N = 480).</td>
</tr>
<tr>
<td>CCNP</td>
<td>1520</td>
<td>6–90</td>
<td>Healthy</td>
<td>rfMRI, T1W, and T2W</td>
<td>Subjects will be contacted on average, every 15 months for 5 years.</td>
</tr>
<tr>
<td>SILCODE</td>
<td>800</td>
<td>50-79</td>
<td>AD</td>
<td>sMRI, rfMRI, tfMRI, DTI, PET, and glucose metabolism</td>
<td>Establish test-retest reliability as a minimum standard for methods development in functional connectomics.</td>
</tr>
<tr>
<td>SALD</td>
<td>494</td>
<td>19-80</td>
<td>Healthy</td>
<td>sMRI, rfMRI</td>
<td>Covering the adult lifespan.</td>
</tr>
<tr>
<td>SLIM</td>
<td>NA</td>
<td>undergraduate students</td>
<td>Healthy</td>
<td>sMRI, rfMRI, DWI, and tfMRI</td>
<td>Long-term longitudinal data (average interval days=817.87 days)</td>
</tr>
<tr>
<td>BABRI</td>
<td>10,255</td>
<td>Aged 50 and over</td>
<td>Dementia</td>
<td>T1W, T2W, dMRI; rfMRI, tfMRI, and PET</td>
<td>Mainly focus on asymptomatic stages of dementia to develop community-based prevention strategies for cognitive impairment.</td>
</tr>
<tr>
<td>CHCP</td>
<td>366</td>
<td>19-37</td>
<td>Healthy</td>
<td>T1W, T2W, rfMRI, tfMRI, and dMRI</td>
<td>Highly consistent with HCP.</td>
</tr>
<tr>
<td>CHIMGEN</td>
<td>7000</td>
<td>18–30</td>
<td>Healthy</td>
<td>sMRI, DTI, and rfMRI</td>
<td>The largest and most integrative Chinese neuroimaging genetics cohort.</td>
</tr>
<tr>
<td>The Human Brainnetome Atlas</td>
<td>3470</td>
<td>NA</td>
<td>Mixed</td>
<td>sMRI, dMRI, and rfMRI</td>
<td>More than 1000 patients, 300 AD patients, 120 stroke pat schizophreniaients, 50 glioma patients and 2000 healthy controls.</td>
</tr>
<tr>
<td>Chinese 2020</td>
<td>1000</td>
<td>18-76</td>
<td>Healthy</td>
<td>T1W</td>
<td>Constructed 12 Chinese brain atlas from the age 20 year to the age 75 at a 5 years interval.</td>
</tr>
<tr>
<td>SMN4Lang</td>
<td>12</td>
<td>23-30</td>
<td>Healthy</td>
<td>T1W, T2W, dMRI, rfMRI, and MEG</td>
<td>A total of 12 participants listening to 6 hours of stories</td>
</tr>
<tr>
<td>Chinese Brain PET Template</td>
<td>116</td>
<td>20-81</td>
<td>Healthy</td>
<td>PET</td>
<td></td>
</tr>
</tbody>
</table>

**R-fMRI** Resting-state functional Magnetic Resonance Imaging, **MDD** Major Depressive Disorder, **CoRR** Consortium for Reliability and Reproducibility, **CCNP** Chinese Color Nest Project, **SILCODE** Sino Longitudinal Study on Cognitive Decline, **SALD** Southwest University Adult Lifespan Dataset, **SLIM** Southwest University Longitudinal Imaging Multimodal, **BABRI** Beijing Aging Brain Rejuvenation Initiative, **CHCP** Chinese Human Connectome Project, **CHIMGEN** Chinese Imaging Genetics, **HCP** Human Connectome Project, **AD** Alzheimer’s disease, **PD** Parkinson’s disease, **rfMRI** resting-state fMRI, **tfMRI** task-based fMRI, **sMRI** structural MRI, **T1W** T1-weighted images, **T2W** T2-weighted images, **DWI** Diffusion-weighted imaging, **dMRI** diffusion MRI, **DTI** diffusion tensor imaging, **DKI** diffusion kurtosis imaging, **ASL** arterial spin labeling, **PET** positron emission tomography
References


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processing & analysis for (resting-state) brain imaging. *Neuroinformatics*, 14, 339-351.


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Mental Health in China
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Abstract
With the accelerated pace of life and the occurrence of unexpected public health events (such as the COVID-19 pandemic), enhancing well-being and reducing the incidence of mental health problems such as depression and anxiety has become an important topic of concern for many researchers. Chinese scholars have made significant contributions in research on mental health. In this paper, we briefly introduce the current status of mental health in China, mental health assessment and intervention, and some recent research trends such as digital intervention, multimodal approaches, and machine learning.

Keywords: mental health in China, current status, assessment, intervention, recent trends

Introduction
Mental health is one of the most popular topics worldwide, affecting progress toward the achievement of several Millennium Development Goals, and emerging techniques and therapeutics bring challenges and opportunities (Appelbaum et al., 2023; Prince et al., 2007). About 14% of the global burden of disease has been attributed to neuropsychiatric disorders, mostly due to the chronically disabling nature of depression and other common mental disorders, alcohol-use and substance-use disorders, and psychoses. Such estimates have drawn attention to the importance of mental disorders for public health. However, because they stress the separate contributions of mental and physical disorders to disability and mortality, they might have entrenched the alienation of mental health from mainstream efforts to improve health and reduce poverty. The burden of mental disorders is likely to have been underestimated because of inadequate appreciation of the connectedness between mental illness and other health conditions. Because these interactions are protean, there can be no health without mental health. Mental disorders increase risk for communicable and non-communicable diseases, and contribute to unintentional and intentional injury. Conversely, many health conditions increase the risk for mental disorder, and comorbidity complicates help-seeking, diagnosis, and treatment, and influences prognosis. Health services are not provided equitably to people with mental disorders, and the quality of care for both mental and physical health conditions for these people could be improved. We need to develop and evaluate psychosocial interventions that can be integrated into management of communicable and non-communicable diseases. Health-care systems should be strengthened to improve delivery of mental health care, by focusing on existing programmes and activities, such as those which address the prevention and treatment of HIV, tuberculosis, and malaria; gender-based violence; antenatal care; integrated management of childhood illnesses and child nutrition; and innovative management of chronic disease. An explicit mental health budget might need to be allocated for such activities. Mental health affects progress towards the achievement of several Millennium Development Goals, such as
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promotion of gender equality and empowerment of women, reduction of child mortality, improvement of maternal health, and reversal of the spread of HIV/AIDS. Mental health awareness needs to be integrated into all aspects of health and social policy, health-system planning, and delivery of primary and secondary general health care. In this scoping review, we will outline the research on the current status of mental health in China and on the progress of psychological assessment and intervention in China, along with the recent trends in how artificial intelligence impacts related research.

The Current Status of Mental Health in China

As mental health issues account for a portion of the disease burden in China, and globally, the Chinese government has promoted the implementation of policies related to mental health. A recent analysis revealed that not only have the number and contents of policy been enriched, but policies have also been implemented both independently by agencies jointly (Li et al., 2022). Besides government, some leading Chinese mental health researchers, such as Chen and Fu (2020), suggested establishment of psychological service system, especially targeting emergency management. Liu and colleagues (2021) have also called for services and cares for professional and medical staff to ensure better service system. As an increasing number of individuals value their mental health status, researchers in China have been actively trying to improve the level of mental health literacy (MHL) for the general population using a variety of intervention tools and wide geographic coverage (Lu et al., 2019). Promoting MHL in the general population is an effective way to educate people about the symptoms of mental disorders, the early signs of mental disorders, treatment beliefs, and encourage people to seek help (Reavley & Jorm, 2012; Tambling, D’Aniello, & Russell, 2021).

Positive dimensions of mental health. Earlier investigators evaluated mental health by drawing attention to common mental disorders such as depression and anxiety; however, positive mental health deserves more research attention to improve mental health outcomes (Provencher & Keyes, 2011). A set of human strengths, such as courage, optimism, interpersonal skills, hope, and perseverance, could buffer against mental illnesses as they provide a balanced and more complete view of human functioning (Lopez et al., 2018, p.5). Influenced by Confucianism and Taoism, the underlying dimensions of meaning in life include self-development, social commitment, interpersonal relationships, secular pursuits, life experiences, civilization, and autonomy (H. Zhang et al., 2016) we content-analyzed 171 students’ answers to the question of what made their lives meaningful and derived 74 frequently mentioned ideas. Then, we composed a questionnaire based on these ideas and administered it to another sample of 523 university students in Study 2. Seven underlying dimensions were identified through exploratory factor analysis: Self-development (i.e., to accomplish one’s aspirations and actualize one’s potential. Studies on subjective well-being have shown that socioeconomic status has a stronger effect on young Chinese adults compared to their older counterparts, whereas sociometric status has stronger effects on older Chinese adults compared to their younger counterparts (Huang et al., 2016). The depletion of economic resources resulting from the coronavirus disease 2019 (COVID-19) pandemic acts as a risk factor for people’s well-being, but improved family relationships resulting from the lockdown could act as a protective factor (R. Zhang et al., 2022). Another study reported that 13.3% of a sample of Chinese university students demonstrated posttraumatic growth during the COVID-19 pandemic, in which meaning in life and resilience played a protective role in promoting mental health during this period (Yu et al., 2022).

Negative dimensions of mental health. The Chinese government was aware of the huge impact of mental health on economic and social development and encouraged the establishment of guidelines and systems for mental health services, such as The Guiding Opinion on Reinforcing Mental Health Services published by the Ministry of Civil Affairs of China in 2017, the social mental health services system established in 2019, and emerging mental health apps in recent years (R. Wang et al., 2022). A recent report

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showed that Chinese adults still lack knowledge about coping with mental disorders and suicidal signs (Jiang et al., 2021). Another nationwide survey conducted in China indicated that 35% of Chinese citizens experienced stress, 34% experienced anxiety, 30% experienced depression, and 25.2% experienced PTSD during the COVID-19 pandemic (Shah et al., 2022). This shows that stress, depression, and anxiety symptoms are common in a state of public health emergency. Researchers and policymakers should further investigate the challenges of mental health services in China. Especially, inequality in the geographic distribution of mental health services in rural and underdeveloped areas needs to be addressed (Xu et al., 2022).

**Mental Health Assessment in China**

Effective assessment of the mental health status of Chinese people is the key to understanding the current state of the mental health of Chinese nationals and is a necessary requirement for developing targeted interventions and/or treatments. Even though mental health assessments originated in Europe and the United States, Chinese scholars have made many efforts and contributions to mental health assessment.

In China, depression and anxiety are relatively common mental health problems that place a heavy burden on the society, families, and individuals. Therefore, Chinese researchers have extensively explored the assessment of depression and anxiety. For example, Yang et al. (2014) examined the reliability and validity of the Chinese version of Beck’s Depression Inventory-Second Edition (BDI-II). Exploratory factor analysis suggested that the BDI-II could extract two highly correlated factors, cognitive-emotional and somatic symptoms. Confirmatory factor analysis found that the general factor-somatic symptom-cognitive-emotional three-factor model fitted the data optimally. The revision of these scales has important implications for the assessment of mental health in a Chinese cultural context.

It is equally important to assess the positive mental health indicators (e.g., well-being and life satisfaction) of Chinese nationals. Xiong and Xu (2009) examined the reliability and validity of the Chinese version of the Life Satisfaction Scale for use in the general population and found that the scale has good consistency, structural and criterion validity and is suitable for measuring life satisfaction in the Chinese cultural context.

Although the above studies have focused on adapting foreign scales, Chinese scholars have also developed indigenous mental health assessment tools. For instance, to assess the mental health of the Chinese general population, Leading psychological assessment researchers, such as F. Cheung and J. Zhang (2008) developed the Chinese Personality Assessment Inventory (CPAI; Cheung et al., 1996), which was later developed into a cross-culturally applicable scale (i.e., the Cross-Cultural (Chinese) Personality Assessment Inventory, CPAI-2; Cheung et al., 2008; Cheung, Zhang & Cheung, 2010). Inventory development has shifted from indigenization to universalization, expanding its global impact. Empirical research supports the utility of CPAI-2 clinical scales for assessing some culture-related mental disorders, such as somatization (Cheung et al., 2008). In addition, Yao et al. (2022) developed a mental health assessment software system for adolescents in China that has the possibility of achieving large-scale and efficient mental health assessments. The system contains 37 scales in five categories: psychological symptoms, psychological stress, personality, coping styles, and culture-related scales, all of which can be operated automatically by a computer.

Overall, Chinese scholars have made important contributions to the assessment of national mental health; however, future research should focus on developing more universalized mental health assessment scales that can be used in multiple cultures to promote the mental health of Chinese people. It is noteworthy that some research on psychological professionals and graduate students in psychology has shown the problematic use of psychological tests (Gan et al., 2012). Thus, future research should take care to comply with ethical norms for mental health assessment (Huang & Zhou, 2022).
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Psychological Interventions in China

In recent years, China has paid increasing attention to mental health services (Chen et al., 2018). The State Council issued the National Mental Health Work Plan (2015-2020) in 2015 and the Healthy China 2030 Plan Outline in 2016, both of which have made strategic arrangements for mental health work. Moreover, the COVID-19 outbreak further triggered the government’s attention to psychological intervention, and a government report indicated that “the government should strengthen psychological counseling and psychological intervention, enhance public opinion guidance, and properly handle the various problems that may occur in the epidemic’s prevention and control, so as to safeguard overall social stability.” The issuance of these documents and policies has promoted the development of mental health and social psychological services in society and has played an important role in improving the national mental health levels and promoting the harmonious and stable development of society (R. Wang, Han, & K. Zhang, 2022).

Traditional mental health services. Psychological counseling and psychotherapy are important professional forces in mental health services. China’s psychological counseling and psychotherapy began in the 1980s and mainly developed in medical, education, and social institutions (Chen et al., 2016). Over the past decades, Qian and colleagues (2012) indicated that corresponding to the substantial increase in the mental health needs of our nation, the scale of the work team for psychological counseling and psychotherapy has expanded rapidly especially in more developed region in China, and the trend toward professionalism has gradually formed. Since the China Ministry of Labor and Social Security launched a national vocational qualification certification for psychological counselors in 2003, more than one million people had obtained certificates by the end of 2017. However, to better promote career development, the national vocational qualification certification was withdrawn in September 2017 (R. Wang, Han, & K. Zhang, 2022).

Currently, new regulations and registration systems for psychological counselors are being drafted under the supervision of China’s Ministry of Human Resources and Social Security, and the Chinese Psychological Society has also developed a registration system for Chinese clinical psychologists. Even though China has accumulated a certain number of mental health service professionals, it is still far from meeting its social needs. In China, there are only 24 professionals to provide mental health services for every million people (Chen, 2018). With increasing attention being paid by the state to the construction of social psychological service systems and the increase in people’s need for a better life, the demand for social psychological services in future will be more urgent, diversified, and developed (Gan et al., 2022).

Digital psychological intervention in China: a new form of health promotion and preventive intervention. In the last couple of years, people worldwide have been experiencing a major health crisis due to the COVID-19 pandemic. This crisis has transformed from a purely physical health issue to a mental health burden. Fortunately, the development of digital interventions and online services in China has contributed significantly to meeting the needs of mental healthcare services. For instance, Lin and colleagues (2022) developed an effective mindfulness-based mobile health (mHealth) intervention program for Chinese younger generations. In addition, people might encounter difficulties in finding resources and professionals for mental health services in suburban areas. In addition, stigmatization also leads individuals to be more reluctant to actively seek help (Wu et al., 2022), which is a less powerful factor when intervention is conducted digitally. With the prevalence of smartphone usage, apps have become major sources for online mental health services (Yin et al., 2020; Zhang et al., 2021). Wu and colleagues conducted a systematic search of Chinese mobile phone app stores to identify and evaluate applications providing mental health services. They found that, although the overall quality of the available mental health apps in the app stores is generally good, the level of health professionals’ involvement and the protection of privacy policies needed further advancement (Wu et al., 2022). A recent systematic review targeting digital health technologies (DHTs) in China highlighted that DHTs targeting mental health issues in China were as
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acceptable and usable as those in the West, despite their focusing on different mental problems than the West (Zhang et al., 2021). The rapid development of digital interventions in healthcare services should focus more on collaboration with professionals so that outcomes are further improved. It is believed that an increasing number of professionals are participating in the development of digital interventions, which has encouraged the general population to attempt the use of digital mental health tools.

Thus, as a new paradigm of psychological intervention, digital technology has great potential for practical application in the field of mental health. However, to avoid ethical issues, we need to be cautious and bridge the gap between digital technology and mental health research services.

Recent Trends: The Application of Multimodal Approaches and Artificial Intelligence in Mental Health Assessments and Interventions in China

Research in the field of mental health has adopted an increasingly multimodal approach. The methodology of studying mental health issues in China has become increasingly diversified, ranging from conventional subjective ratings through questionnaires to physiological data collection and computational modeling based on various kinds of data. Multimodal approaches have been applied for the purposes of detection, prediction, assessment, and evaluation. For instance, Ye et al. (2021) established a novel method for detecting depression by relying on audio and text. Specifically, the researchers, using computer deep learning of low-level audio features, were able to differentiate the speech of individuals suffering from depression from the speech of healthy controls based on their distinctive sensitivity to changes in emotions (Ye et al., 2021). Efforts have also been made to analyze the heterogeneity of major depressive disorder (MDD), which is characterized by highly complex neuronal connection presentations. One group of researchers led by Yan and Li recorded the baseline resting-state functional magnetic resonance imaging of individuals with MDD and healthy controls registered from various sites of the REST-meta-MDD project in China and investigated the functional connectivity profile differences between the two groups (Liang et al., 2020). Two subgroups of different connectivity profiles were identified, suggesting two neural subtypes that can contribute to the further development of personalized treatment and therapeutic strategies (Liang et al., 2020). Moreover, mental health and overall well-being are generally influenced by and interact with a wide variety of factors such as sleep quality, eating behavior, physical exercise, and lifestyle. Thus, many studies have considered these factors for further investigation and as predictors and indicators of mental health status (Ge et al., 2019; Zhao et al., 2021).

Although psychological intervention in China started relatively late, a series of psychology studies have been carried out in the fields of artificial intelligence and machine learning. In addition, with the rapid development of technology, psychological interventions have integrated emerging technologies, such as artificial intelligence and machine learning. For example, during the COVID-19 pandemic, Chinese scholars used AI programs to monitor and analyze messages posted on microblogs to identify individuals at risk of suicide and remind designated volunteers to take corresponding actions. These online mental health services promote the development of public emergency interventions in China and can ultimately improve the quality and effectiveness of emergency interventions (Liu et al., 2020). Tang et al. (2020) and the Finnish educational technology company Schoolday jointly established a student mental health evaluation model and assessed the mental health of students and teachers with the help of an artificial intelligence system, providing an important basis for further psychological intervention.

On the other hand, a major way to perform prediction and detection in the fields of mental health and psychological sciences is through machine learning. For instance, a recognition model by Zhu and colleagues for psychological indicators is built by comparing self-reported data with data extracted from social media, and mapping the two using machine learning (Su et al., 2021).
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data application are also critical steps for psychological research in China to develop into a solid and independent scientific subject, abandoning the stereotypes and limitations of traditional psychological science (Yu, Peng, & Zheng, 2015). Recently, a team of researchers conducted a systematic review of studies that aimed to detect and measure depressive symptoms through social media using machine learning. In general, the studies in this review have indicated that machine learning applications are effective at detecting depression based on text extracted from social media (Liu et al, 2022). Moreover, the researchers suggested that machine learning could serve as a complementary tool for depression diagnosis and called for larger sample sizes, standardization, the optimization of procedures, and collaborations between scientists from all related fields (Liu et al., 2022). In addition, Li and Liu recently developed an improved convolutional neural network and proposed a DeepPsy model which functions to earlier recognize mental health disorders and improve the quality of mental health in primary and secondary education students (Li & Liu, 2022). Artificial intelligence applications will be exceptionally beneficial when the proposed prediction is accurate in dealing with mental health issues. People seldom seek help when they just start to feel mentally unwell or might fail to recognize risks. The early detection of suicidal ideation is extremely important for both individuals and society (Kim, Lee, & Park, 2021). With the help of predictions arrived at through machine learning, early intervention should be the new focus of the mental healthcare system. The need for more advanced research and researchers in our field to consider the possibility of implementing machine learning approaches should be a top priority.

Conclusion

In this paper, we reviewed four aspects of mental health development in China, including the current status of mental health research, mental health assessment, psychological intervention, and some recent research trends. Indeed, with the development of the economy and the increase in stressors, the threat to people’s mental health has gradually increased, and the government has paid more attention to people’s mental health problems, which has led to the rapid development of mental health in China. Moreover, given the increase in demand for mental health services and the progress of science and technology, some digital psychological service products have been developed, such as digital psychological intervention applications and AI chat robots (Liu et al., 2022). In the future, China’s mental health field needs to further improve its research and service mechanisms, which may contribute to the establishment of research on national mental health and international mental health disciplines.

References


of the Chinese Personality Assessment Inventory.


Wu, X.-Y., You, J.-H., Li, A.-J., He, Z., & Huang, C.
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**Biography of the first author**

**Yiqun Gan** is a Professor at the School of Psychological and Cognitive Sciences at Peking University, China, with a Ph.D. from the Chinese University of Hong Kong in 1998. She has published over 160 research papers in top international journals. She currently serves as the co-Editor-in-Chief for “Applied Psychology: Health and Well-being” (IF=7.521). She is the President of Division 8 of the International Association of Applied Psychology (IAAP) and the President of Behavior and Health Division of the Chinese Psychological Society. She is also an Associate Editor in top local journals “Acta Psychologica Sinica”, “Advances in Psychological Science”, and “Journal of Pacific Rim Psychology.” She has been awarded a fellowship of the International Association of Applied Psychology (IAAP) and Distinguished International Affiliate (fellow equivalent) of the Society for Health Psychology (Division 38) of the American Psychological Association (APA). Her research interests include stress and coping, health psychology, and digital psychological intervention.
Theoretical Psychology and History of Psychology (CTPHP)

Shuchang Yan

The Division of Theoretical Psychology and History of Psychology (CTPHP) of the Chinese Psychological Society (CPS) can be traced back to the Division of Basic Theory of Psychology, established in Beijing in 1979, and renamed as CTPHP in 1993. With more than 50 members right now, CTPHP has been playing an important role in the development of CPS as well as Chinese psychology.

As its name reveals, CTPHP mainly focuses on two aspects: theoretical psychology and the history of psychology. Regarding the former aspect, its early work included the comments on Wundt’s psychology and Freud’s psychoanalysis, the relationship between psychology and practices, the relationship between body and mind, consciousness issues, psychological methodology, and the unity and disunity of psychology discipline. In recent years, the focus has been shifted to theoretical issues, such as the psychological value of Chinese traditional culture, moral psychology, embodied cognitive psychology, and so on. The latter aspect mainly focuses on the history of Chinese, Western and Russian psychology. Our division has published a series of textbooks on Chinese and Western psychology. By introducing ideas and methods of Western psychology to Chinese psychology, the division effectively promoted the development of psychology in China. The division also studies the history of ancient Chinese psychology and Chinese modern psychology. The history of ancient Chinese psychology has been widely studied by psychologists. In recent years, the history of Chinese modern psychology has got more attention. For example, the conceptional history on Xinli Xue (psychology), the contribution of famous psychologists such as Zing-Yang Kuo/Ren-Yuan Guo, Shuh Pan, Siegen Chou/Xian-Geng Zhou, and Lih Chen, the history of image in psychology, archival research in Chinese modern psychology. Recently, the division focuses more on the one-hundred-year history of Chinese modern psychology.

In the future, the two aspects will to some extent integrate meta theoretical problems and theoretical problems in specific practices, so that the research of both aspects could be further improved. For the study of the history of psychology, more focus will be placed on modern implications of ancient Chinese psychological thoughts, as well as the development and utilization of archives of Chinese modern psychology and its micro-historical research. It will be an important pursuit of CTPHP to bring original Chinese ideas to the world of psychology.

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Effectiveness of the Dejian Mind-Body Intervention and Program for the Education and Enrichment of Relational Skills to Improve Executive Functioning of Children with Autism: A Randomized Controlled Pilot Study

Yuk Shing TANG

Abstract

Executive dysfunctions are largely connected with Autism Spectrum Disorder (ASD) syndromes, however, there are not many interventions treating the core neuropsychological aspect of the disorder. The Dejian Mind-Body Intervention (DMBI) is an emerging technique from China in treating mental disorders that has shown promise to help executive function in autistic children. This research examines the treatment effects of DMBI, using Randomized Controlled Trials (RCT) with DMBI as the experimental group and the PEERS intervention as a comparison group.

Twenty participants aged 10 to 16 were distributed into two groups: 10 participants (9 males and 1 female) in the DMBI group and 10 males in the PEERS group. The treatment in both groups was administered once per week for 12 sessions. In the DMBI group, the participants carried out activities including the Chan practice (self-control and self-awareness psychoeducation), Nei Yang Gong practice (body exercises), diet adjustment, and bodily orifices clearing. Participants in the PEERS group were educated about how to make friends. Parents of the children took part in the treatment three times bilaterally. Pre-post assessments were done using five neuropsychological tests and standardized questionnaires. The results showed that the scores for some assessments in the DMBI group trended towards showing more improvement in executive functioning compared to the PEERS group. However, these differences were not statistically significant across all of the assessments. However, the present pilot study highlights the potential benefits of incorporating alternative treatment approaches like DMBI in addressing executive functioning.

Introduction

Autism spectrum disorder (ASD) is a neurodevelopmental disorder complicated by problems with behavior, sociality, and verbal and nonverbal communication (American Psychiatric Association, 2013). Experts suggest that executive dysfunctions, e.g., cognitive flexibility, inhibitory control, working memory, and planning, account for the typical autistic problems (Kenworthy et al., 2008; O’Hearn et al., 2008).

Even though ASD is considered to have neuropsychological features, most interventions for autism are behavioral. Of these treatments, Applied Behavioral Analysis (ABA) is one of the most effective in helping increase adaptive behaviors and decrease maladaptive behaviors (Matson & Smith, 2008). However, time and labor costs are relatively high throughout the learning process and some low-functioning people with autism may be hampered by verbal instructions (Motiwala et al., 2006). Another mainstream treatment is cognitive behavioral therapy (CBT), recommended by the National Institute for Health and
Dejian Mind-Body Intervention cont.

Clinical Excellence (NICE) and the American Psychological Association (APA) for treating many psychological disorders. Although CBT has promising results in treating high-functioning teenagers with their anxiety and social difficulties, research has not been conclusive for other groups (White et al., 2010).

In 2012, Laugeson and colleagues introduced the Program for the Education and Enrichment of Relational Skills (PEERS) to improve social responsiveness and knowledge in children with autism. Compared with long-term behavioral treatments, PEERS requires only 12 to 14 weeks. Parents and children are both involved in educational sessions that teach building and maintaining a friendship. With limited sessions, PEERS demonstrated positive effects on improving the social ability of autistic adolescents (Chang et al., 2014).

The Dejian Mind-Body Intervention (DMBI) is a novel method originating from Chinese Shaolin practices (Chanwuyi) at the Sanhuangzhai monastery. As the world increasingly embraces innovative psychological approaches, especially those that are culturally-appropriate, it is essential to consider the potential applicability and impact of DMBI on diverse populations, including those outside of China.

DMBI has an impressive history, with its roots spanning over 13 years and encompassing a wealth of work and dedication. This intervention comprises three major components: Chan practice (fostering self-control and self-awareness through psycho-education), Nei Yang Gong practice (engaging in body exercises), and diet adjustment (Chan, 2010). For centuries, Chanwuyi has been transmitted across generations among the Shaolin sangha, evolving through the efforts of numerous practitioners. One notable lineage of Chanwuyi is led by Master Dejian, abbot of the Songshan monastery and the 4th successor of Wugulun Chanwuyi from the Shaolin temple. DMBI was established on the foundation of Master Dejian’s lifelong practice and further refined by Professor Agnes Chan (2010), who has been studying Chanwuyi under Master Dejian for over three decades. This technique, which required decades of development and the collaboration of numerous individuals, is now poised to make a significant impact in the realm of mind-body interventions.

Previous research on DMBI found positive results in different clinical groups, including in cases of chronic epilepsy (Chan et al., 2009), depression (Chan et al., 2012a), and subjective memory of older adults (Chan et al., 2014, 2017). DMBI was first implemented for persons with autism as early as a case study of a nine-year-old boy who showed improved memory and executive functioning throughout annual practice and training (Chan et al., 2011) with the result that the boy was able to control his emotional outbursts after the intervention.

Further investigations used a randomized controlled trial of DMBI with autistic children (Chan et al., 2013) aiming to compare treatment effects with traditional progressive muscle relaxation (PMR) to improve self-control ability. Forty-six children were equally distributed into two groups, receiving different treatments. Results from the parent reports indicated reduced incidences of emotional outbursts in the DMBI group, and thus showing more enhanced self-control, compared with the PMR group. Also, children in the DMBI group had larger activity in the anterior cingulate cortex which regulates self-control, compared with the PMR group. These studies suggest positive effects of DMBI to serve various clinical needs.

Based on the encouraging results from the case study on cognitive function and DMBI (Chan, 2011), the present study examined the effects of DMBI in executive functioning (known as “cognitive control” or “cognitive functions”) with Randomized Controlled Trials (RCT) using a comparison group.

Executive function is a group of functions majorly demonstrated by the prefrontal cortex (Alvarez & Emory, 2006), including inhibitory control and cognitive flexibility, usually found impaired in the autistic population (Solomon et al., 2008). For the RCT, groups of children were assigned to the experimental group.
Dejian Mind-Body Intervention cont.

and comparison group randomly. Participants in the experimental group were treated with DMBI. For the comparison group, PEERS was used because of its distinctive function in social education while not affecting executive functioning rooted in the neurological structure.

Specific aims and hypotheses of the pilot study are as follows:

**AIM 1: To assess the performance of DMBI in executive functioning, compared to participants using PEERS.** *Hypothesis:* After the training, participants who received DMBI were expected to have better performance in executive functioning, compared to participants using PEERS.

**AIM 2: To compare the pre-post performance of DMBI in executive functioning.** *Hypothesis:* Improvement in terms of executive functioning would be shown, according to pre-post assessment for participants after receiving DMBI.

**Materials**

**Ethics Statement**

This pilot study was conducted in cooperation with the Kwai Chung Hospital. The research protocol was approved by the Research Ethics Committee of the Kowloon West Cluster in Hong Kong SAR.

**Participants**

Twenty children with ASD aged between 10 and 16 participated in the experiment voluntarily with their parents’ written consent. The *a priori* sample size was estimated based on previous studies (Chan et al., 2013; LAU, 2017) on the Dejian Mind-Body Intervention for autism (*a* = 0.05, power = 0.8, the attrition rate is around 25%), showing that the minimum required subjects in individual groups were twenty-four. For this pilot study, fewer subjects were available for analysis. However, there are 48 more subjects, who will ultimately comprise a larger sample size.

Participants were co-recruited from Kwai Chung Hospital from an in-house waiting list for ASD intervention provided by the Clinical Psychologist at the Child and Adolescent Psychiatric Outpatient Clinic of the Hospital. Inclusion criteria included: (a) Cantonese as first language, and, (b) residence with parents, with one parent being the main caregiver.

All participants received a formal diagnosis based on The Autism Diagnostic Interview-Revised (ADI-R), the Autism Diagnostic Observation Schedule – Second Edition (ADOS-2) by qualified clinicians in the Kwai Chung Hospital through a standard clinical interview based on DSM-IV or DSM-V criteria (Bell, 2000; American Psychiatric Association, 2013; Bell, 2000). ADI-R and ADOS-2 were suggested as useful instruments in identifying the extent of autistic traits in children and adolescents (Le Couteur et al., 2008). The diagnostic procedure was overseen by a consultant child psychiatrist at Kwai Chung Hospital. Children who met the following criteria were excluded: (a) significant physical disability; (b) history of other neurological or psychiatric disorder or head trauma; or (c) parents with intellectual impairment or current psychosis.

The remaining children were paired-distributed in random groups according to their ages and their scores on the Child Autism Spectrum Quotient (AQ) and the Social Responsiveness Scale (SRS). The randomization was through drawing lots. By the end of the experiments, six children were dropped from the study, leaving 13 participants (DMBI: 6; PEERS: 7), because of insufficient motivation, and lacking time commitment.

Table 1 illustrates the demographic characteristics of the two groups DMBI and PEERS. Both groups were matched in age, *t*(13) = -3.13, *p* = 0.02, gender, *t*(13) = -1.84, *p* = 0.18, handedness, all in right-handed, and severity of ASD symptoms measured by Autism Spectrum Quotient (AQ), *t*(13) = 0.86, *p* = 0.82, and the Social Responsiveness Scale (SRS), *t*(13) = 1.2, *p* = 0.51. Because of the limited subjects, the variance of ages and gender is compensated after the random dropouts (24%). The attendance of the two groups is
close to each other for both children, $t(13) = 1.54$, $p = 0.30$ and parents, $t(13) = 1.64$, $p = 0.26$. Mood and Feeling Questionnaire was also assessed as a psychological indicator, in self-report, $t(13) = 1.49$, $p = 0.32$, and in parent’s report on their child, $t(13) = 2.1$, $p = 0.10$.

If the items were repeated, the new one was marked as a perseveration, whereas corrected items were marked as intrusions. The Category Fluency Test was adapted to Chinese-speaking regions with clinical significance (Chan & Poon, 1999).

### Procedures

Prior to the baseline assessments, participants and their parents were briefed on the experimental procedure and informed about the consent form. After the baseline assessments, participants were instructed to go into a quiet room and their parents waited in another room. A trained psychological assistant assessed all the participants in both pre- and post-experiment. The assessments were conducted before the first treatment and after the final treatment in the Chinese University of Hong Kong.

### Neuropsychological assessments

Various neuropsychological tests were administered.

The Five Point Test (Regard et al., 1982) is an empirically-tested measure to assess executive functioning in terms of mental flexibility and planning ability (Goebel et al., 2009; Tucha et al., 2012). Participants are instructed to draw different graphs as many as possible within a limited period of time. The total number of unique figures produced within 5 minutes indicates better mental flexibility and planning ability in positive correlation.

The Trail making Test (TMT) is a frequently-used neuropsychological test in Western countries, where English is their native tongue. The Shape Trails Test originated from TMT, replacing the alphabet with numbers, therefore reducing the literal discrepancy. The test measures executive functioning in terms of inhibitory control and cognitive flexibility (Zhao et al., 2013) with promising clinical significance in Chinese-speaking regions. The test comprised two trials and, in both tests, participants were instructed to connect shapes and numbers in order. The first

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**Table 1. Baseline Characteristics of Participants in Experimental (DMBI) and Comparison (PEERS) Group**

<table>
<thead>
<tr>
<th>Statistics</th>
<th>Groups</th>
<th>t-stat</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DMBI (n = 6)</td>
<td>PEERS (n = 7)</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>10.33</td>
<td>11.14</td>
<td>-2.76</td>
</tr>
<tr>
<td>Gender (M:F)</td>
<td>5:1</td>
<td>7:0</td>
<td>-1.42</td>
</tr>
<tr>
<td>Handedness (L:R)</td>
<td>0.6</td>
<td>0.7</td>
<td>-</td>
</tr>
<tr>
<td>Child Attendance</td>
<td>0.77</td>
<td>0.70</td>
<td>1.09</td>
</tr>
<tr>
<td>Parent Attendance</td>
<td>0.83</td>
<td>0.71</td>
<td>1.19</td>
</tr>
<tr>
<td>AQ</td>
<td>82.67</td>
<td>80.71</td>
<td>0.86</td>
</tr>
<tr>
<td>MFQ (SR)</td>
<td>17.67</td>
<td>15.29</td>
<td>1.03</td>
</tr>
<tr>
<td>MFQ (RP)</td>
<td>20.17</td>
<td>13.86</td>
<td>1.75</td>
</tr>
<tr>
<td>SRS</td>
<td>122.10</td>
<td>111.27</td>
<td>1.21</td>
</tr>
</tbody>
</table>

*Notes: AQ = Autism Spectrum Quotient; MFQ = Mood and Feeling Questionnaire; SR = Self-report; RP = Report by Parents; SRS = Social Responsiveness Scale*
Dejian Mind-Body Intervention cont.

The Hong Kong Digit Cancellation Test (HKDCT) is a neuropsychological measure developed by the Hong Kong Neuropsychology Association. It measures attention and inhibitory control by asking participants to cross out a specific number from an aligned random number table, which consists of digits from zero to nine. In the beginning, participants were instructed to practice with 4 lines. When all the specific numbers were found in the trial, the participants could continue to finish the first and second page in 10 minutes.

The Rey-Osterrieth Complex Figure (Osterrieth, 1944; Rey, 1941) is a neuropsychological measure in which participants are instructed to reproduce a complex graph with different components and shapes. First, they copy the graph freehand. Then, participants need to draw the graph according to memory. ROCF assesses various abilities including many executive functions, such as working memory, attention, and planning. Clinical evidence has suggested it is useful in assessing executive function.

Behavioral measure

As autistic symptoms are found to be associated with executive function, The Autism Treatment Evaluation Checklist (ATEC) was used (Edelson et al., 1999), having been shown to be a useful tool (Magiati et al., 2011). The ATEC is a short form consisting of 70 questions in four subscales: (a) speech/language communication (14 items); (b) sociability (20 items); (c) sensory and cognitive awareness (18 items); and (d) health and physical behaviors (25 items). The total score ranges from 0 to 180, in which the low end is considered to have less severe autistic symptoms than the high end.

Intervention

Participants attended a 90-minute training session at the Kwai Chung Hospital once per week for twelve weeks. Two clinical psychologists with more than ten years’ experience in treating autistic children guided the sessions and, in both groups, caregivers were required to attend three sessions.

Dejian Mind-Body Intervention (DMBI)

DMBI alleviates autistic syndromes through changing lifestyle. Chanwuyi is based on the fact that urban citizens have psychological disorders and distress because of their irregular work pattern and unhealthy diet. Hence, Nei Yang Gong practices are used to unblock the flow of Qi with physical movements (Chan, 2010; 2012; 2014; Yu et al., 2014). Another important concept is that what we eat leads to what we are. Changing the diet and eating more greens will not only improve physical health but also mental health (Chan, 2010). Chan practice exercises mentality with psycho-education about how to control oneself. Both mind and body are trained in DMBI, which emphasizes the inter-related health between them, which is rarely seen in other interventions for autism. Thus, changes that happen in the body will also influence mind, and vice versa.

The DMBI sessions were guided by a clinical psychologist familiar with the structure of its usage. The three components of DMBI are explained below.

In Chan practice, participants received lessons on “self-control”. Regarding control over impractical desires (e.g., greed), temper, and obsession over objects or people, Chanwuyi cartoons (Chanwuyi Foundation Limited (Hong Kong), 2014) were played once per session. The cartoons were drafted based on Buddhism stories and daily-life situations that attract the interest of children. After playing cartoons, clinical psychologists talk about the specific topic and discuss what the child can do when they need to control themselves. Participants were also alerted to be aware of their physical symptoms (e.g., diarrhea, constipation, stomach aches, headaches, loss of appetite, shortness of breath).
Dejian Mind-Body Intervention cont.

In *Nei Yang Gong* practice, participants were taught a set of basic *Shaolin* body exercises and *Dantian* breathing techniques. Not only were the exercises practiced in each session, but also the participants were instructed to practice once per day on their own. The record of their practices was noted in a workbook and signed by their parents to certify their completion. At the beginning of each session, the clinical psychologist checked the workbook and praised participants for good performance with healthy snacks at the end of each sequence of three sessions.

The practices and exercise tutorials can be accessed from a public streaming video platform by the Chanwuyi Foundation Limited, Hong Kong (2014). Participants mirrored the movements in the videos, which are simple to learn. According to the 10-year clinical practice of this method, even severe autistic patients can perform the movements accurately without much effort. The *Nei Yang Gong* practice is comprised of breathing exercises and gentle body movements. Although practice time was not fixed, participants were advised to continue practicing the movements until they felt warmth and relaxed, and encouraged not to over-practice since that might lead to exhaustion.

The *Diet Adjustment* is a way to monitor participants’ diets in the workbook along with the record of *Nei Yang Gong* Practice. It was suggested to reduce the intake of spicy, irritating food (e.g., pepper, ginger, onions) and meat because those foods would generate a large amount of heat inside the body and disturb the normal functioning of both physical and mental health (Chan, 2010). Instead, advice was given to increase intake of vegetables, fruits, grains, mushrooms, nuts and root vegetables.

The Program for the Education and Enrichment of Relational Skills (PEERS)

PEERS aims to improve the social skills of participants through didactic lessons that teach (a) communication skills (face-to-face and via social media); (b) involvement in peer groups; (c) usage of humor; (d) keeping a relationship going; (f) appropriate social behaviors during games and sports; (g) controlling emotional outbursts; (h) dealing with bullying; (i) developing a good reputation; (j) handling conflicts with friends; and (k) solutions to deal with rumors (Laugeson, 2011).

Caregivers and adolescents were organized in separate classroom. The class began with homework reviews that identified the key problems in the homework for both groups. Then, a didactic lesson, which includes psycho-education, role-play and behavioral practices, was taught to the adolescent group. In the parent group, homework reviews were guided. At the end of the lessons, both groups were instructed to reunite in the same room. Parents reviewed briefly the lesson for caregivers and the plan for the next homework with their children together.

**Statistical Analysis**

The IBM SPSS (Version 22.0, 64-bit edition) Statistics program was used for the statistical analysis. Demographic and clinical baseline group differences were computed by ANOVAs. Preliminary correlations were conducted to measure the consistency among tests. To investigate the size of effect, paired samples t-tests with controlled comparison and Cohen’s d were used to compare the mean difference of pre- and post-interventions on neuropsychological and behavioral measures with pre- and post-changes conducted within and between groups with one sample t-tests and independent samples t-tests. If significant results were found in the between-group in one-way ANOVA, a subsequent post-hoc test would be performed to determine the estimated errors.

**Results**

**Consistency of Test Construct**

First, repeated measures ANOVAs were performed to calculate the variances of the Category Fluency Test, Five Point Test, Rey-Osterrieth Complex Figure, Hong Kong Digit Cancellation Test and Shape Trail Test. Later, correlations were performed to determine
Dejian Mind-Body Intervention cont.

the factor loadings (see Table 2). It is noted that, in component 1 of Table 2, performance on the Category Fluency Test, Hong Kong Digit Cancellation Test, Rey-Osterrieth Complex Figure and Five Point Test is negatively correlated with the Shape Trail Test, which indicates better ability in executive functioning, reflected in the negative correlation of the scores. Hence, neuropsychological tests are positively correlated, and the construct was built reasonably.

Notably, based on the comparisons in Table 3, the total number of preservations in Category Fluency Test saw a reduction in the DMBI group (mean score difference is -0.5) with a significant p value (p value < 0.05) and a moderate effect size. The results show that participants achieved increases in reducing their repetitive errors with DMBI, while the situation is adverse in the PEERS group (mean score difference is 0.28, p value > 0.05).

<table>
<thead>
<tr>
<th>Table 2. Factor loadings of Principle Component Analysis</th>
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<tbody>
<tr>
<td>Comp. 1</td>
</tr>
<tr>
<td>CFT</td>
</tr>
<tr>
<td>STT</td>
</tr>
<tr>
<td>HKDCT</td>
</tr>
<tr>
<td>ROCT</td>
</tr>
<tr>
<td>FPT</td>
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</tbody>
</table>

Note: Comp. = Component; CFT = Category Fluency Test; STT = Shape Trail Test; HKDCT = Hong Kong Digit Cancellation Test; ROCT = Rey-Osterrieth Complex Figure; FPT = Five Point Test

Changes in Neuropsychological Index

Analysis on the four assessments (i.e., Category Fluency Test, Five Point Test, Shape Trail Test and the Hong Kong Digit Cancellation Test) showed that DMBI helped autistic children improve their inhibitory control (p value from 0.01 to 0.36 and Cohen’s d from 0.55 to 2.26). Less effects were seen in the PEERS group (p value from 0.00 to 0.45 and Cohen’s d from 0.00 to 0.91).

Moreover, the mean intrusions number of the DMBI group as demonstrated in the Five Point Test was largely reduced by 1.33, with a moderate effect size (0.73) while no significant p value was accounted for.

Also, the mean total errors in the Shape Trail Test were reduced in the DMBI group (- 0.17 and – 0.66, test 1 and test 2 respectively), with moderate effect size and no significant p value shown likewise.

<table>
<thead>
<tr>
<th>Table 3. Means and Standard Deviations of the Neuropsychological Tests in Cognitive Reflexibility and Planning</th>
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<tbody>
<tr>
<td>Experimental Group</td>
</tr>
<tr>
<td>(n = 6)</td>
</tr>
<tr>
<td>FPT</td>
</tr>
<tr>
<td>total unique designs</td>
</tr>
<tr>
<td>STT</td>
</tr>
<tr>
<td>T1 finishing time</td>
</tr>
<tr>
<td>T2 finishing time</td>
</tr>
<tr>
<td>ROCF</td>
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<tr>
<td>total score of copy</td>
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<td>total score of ic</td>
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</table>

Note. ES = Effect Size; Diff = average of difference scores by subtracting pre score from post score; p = p value; FPT = Five Point Test; STT = Shape Trail Test; T1 = Trial 1; T2 = Trial 2; ROCF = Rey-Osterrieth Complex Figure; ic = immediate recall; #Performance and the scores are negatively correlated; *p<0.05, **p<0.01; +Moderate Effect Size (Cohen’s d>0.5), ++Large Effect Size (Cohen’s d>0.8); Determination of Effect Size sees Effect Size Table by Cohen (1988).
Dejian Mind-Body Intervention cont.

Even though the differences were not statistically significant in the above-mentioned tests, the comparison (PEERS) group showed a considerable decrease in the Hong Kong Digit Cancellation Test compared with the DMBI group (mean Digit Cancellation Index pre-post difference: -9.21 and -4.54 respectively).

As shown in Figure 1, the PEERS group showed large variances in the HKDCT and participants scored high in the pre-test. In the DMBI group, participants performed similarly, e.g., slightly worse post treatment than before they received the treatment. The large effect size and significant p value in DCI score did not support the enhancements in inhibitory control. Overall, there is no significant between-group differences seen according to these tests.

Figure 1. Association between pre- and post- in Hong Kong Digit Cancellation Test.

Comparisons showed that both groups demonstrated worse performance in the post compared to the pre assessment; however, the PEERS group revealed larger variances.

Cognitive Flexibility and Planning

The ability of cognitive flexibility and planning in the DMBI group outperformed the PEERS group according to various assessments. In the Shape Trail Test that requires planning and cognitive flexibility, participants from the DMBI group achieved significant improvements in test 1 with a moderate effect size (p value < 0.05, Cohen’s d > 0.5). Similarly, results of Rey-Osterrieth Complex Figure copy task showed a large effect size (Cohen’s d = 1.55), despite no significant p value. Nevertheless, the PEERS group showed significant improvement in the Five Point Test total unique designs (Cohen’s d > 0.5, p value < 0.05). Lastly, statistical significance between group differences were not been found according to these tests.

There was no statistically significant finding in terms of the performance by the DMBI group. However, the PEERS (see Table 4) showed significant effects, in helping autistic children with their social skills (Cohen’s d > 0.5, p value < 0.05), confirming its original rationale. The total scores of both interventions dropped from pre to post-assessment, while mean total scores of the PEERS decreased to a larger degree than for the DMBI group (-8.28 and -3.17 respectively). No statistical significance between-group differences were found according to scores on the ATEC.

See Table 4 on Page 73

Conclusion

Some within-group significant improvements were found in the DMBI group according to the scores on some of the neuropsychological assessments (i.e., the Shape Trail Test and Category Fluency Test). Also, participants in the DMBI group generally performed better than participants in the PEERS group. In contrast, no between-group statistically significant results were found. It is noted that participants in the DMBI group inherently demonstrated weaker performance in the neuropsychological measures than the other group prior to the intervention. Lastly, large variances were indicated in the HKDCT for PEERS group.

Discussion and limitations

Autism Spectrum Disorder is usually a lifelong, irreversible condition. Many patients come to the treatment only after they are adults (Martin, 2014),
meaning they have suffered from uncontrollable behaviors and lack of attention, lack of bonding with others and discrimination since childhood and hope to find a cure for the disorder. However, mainstream interventions (i.e., Applied Behavioral Analysis, Pivotal Response Training, and Speech Therapy) concentrate on outward behaviors rather than addressing the root cause of ASD, as the behavioral abnormality was only a by-product of the distorted functions in the brain. Autism Spectrum Disorder is recognized as a neurodevelopmental disorder, and it is essential to adopt a holistic approach that addresses both the body and the mind to achieve optimal outcomes. DMBI demonstrates effectiveness by incorporating physical exercise, meditative breathing techniques, psychoeducation, and dietary management to support children with ASD. This comprehensive Eastern approach helps those with ASD attain improved results in various aspects of their lives. As a result, it may be beneficial to promote and implement this method more widely.

The findings of the present investigation revealed that, although the improvements in executive functions for the DMBI group did not attain statistical significance, a positive trend towards enhancement was observed. For example, their inhibitory control and planning were strengthened according to scores on the Shape Trail Test and Category Fluency Test. Results of another test for planning and cognitive reflexivity (Rey-Osterrieth Complex Figure) showed that most participants from the DMBI group did show considerable improvements. Hence, some abilities (inhibitory control, planning and cognitive reflexivity) of executive functioning showed improvement. However, not all the tests generated positive outcomes from pre- to post assessment and results were insignificant between the groups across all the tests. In the control group, the PEERS intervention helped enhance social ability according to the ATEC sociality scores. These results conform to results from previous studies.

Inconsistent findings in the DMBI group can be explained by various factors. First and foremost, there was an urgent need to recruit more participants, for a larger sample. The lack of significant results on the neuropsychological tests might be explained by the

<table>
<thead>
<tr>
<th>Table 4. Means and Standard Deviations of the Behavioral Test</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td>ATEC</td>
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<tr>
<td>Speech score#</td>
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<tr>
<td>Sociability score#</td>
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<tr>
<td>S/C Awareness score#</td>
</tr>
<tr>
<td>Health score#</td>
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<tr>
<td>total score#</td>
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</tbody>
</table>

Notes: Effect Size; Diff = average of difference scores by subtracting pre score from post score; p = p value; ATEC = Autism Treatment Evaluation Checklist; S/C = sensory and cognitive; #Performance and the scores are negatively correlared; *p<0.05; +Moderate Effect Size (Cohen’s d>0.5); Determination of Effect Size sees Effect Size Table by Cohen (1988).
Dejian Mind-Body Intervention cont.

fairly small size. Individual differences may uncover more true improvement; which are under investigation. For example, the outliers, which deviate considerably from the overall pattern or trend shown in the DMBI group (see Figure 1), added strong noise to the data. Adding more participants might change the results.

Performance on the initial neuropsychological assessments of the DMBI group was relatively lower than that in the PEERS group, which might be explained by the fact that participants in the DMBI group were inherently lower performers in terms of executive function. As a result, in later replications of this study, the variable of baseline executive functioning needs to be controlled, along with the standardized autism tests.

In addition, one or two tests of executive functioning should be given to the participants before training in order to balance the baseline when testing executive functioning. For example, Delis-Kaplan Executive Function System (D-KEFS) is a comprehensive executive functioning test (Carone, 2007). This protocol consists of nine individual cognitive tests, each targeting different aspects of executive functions such as cognitive flexibility, planning, verbal fluency, planning, inhibition, and problem-solving. The D-KEFS is suitable for evaluating children's executive functioning as a holistic pre-post assessment in executive functioning.

In line with the mainstream mind-body practices (Hourston & Atchley, 2017), the DMBI did show better improvement evident in the contrast between the experimental and comparison groups in this study; however, mind-body treatments are not widely accepted by the majority of professionals as an acceptable therapy for autism. Mind-body treatments are new to the field, but not ineffective; therefore, they should get wider attention and research.

Other approaches need to be taken into account. For example, research on meditation indicates that there are significant results in reducing physical aggression (Singh et al., 2017). Yoga practice has also been proven to improve the imitation behavior of autistic children, teenagers, and adolescents (Semple, 2019). In addition, mindfulness practice has been shown to have long-term improvements in rumination, worry, social ability, and autistic symptoms (Ridderinkhof et al., 2018).

The promising outcomes in different forms of mind-body interventions (Hourston & Atchley, 2017) indicate that it is highly valuable to explore this approach addressed in this pilot study. Also, the evaluation of treatment effects in future studies should include long-term monitoring to determine if participants have sustained the DMBI instructions and adopted the practices as part of their lifestyle. To examine gender differences, future studies should ensure the samples are gender-controlled, with all-female and all-male groups. Furthermore, future studies should incorporate a control group that receives no treatment or a neutral task that doesn't involve social connection or cognitive function. In an RCT, this group would need to receive treatment after the initial analysis. Overall, these improvements will enhance the validity and comprehensiveness of the study's findings.

In addition, assessment using different types of intelligence tests might inform outcome results since such testing is another important factor that influences performance of executive functions (LAU, 2017). These standardized assessments measure a range of cognitive abilities and intellectual potential, such as verbal, mathematical, and spatial skills. Various intelligence tests, including the Stanford-Binet Intelligence Scale and the Wechsler Intelligence Scales, offer insights into an individual's cognitive strengths and weaknesses. By understanding the relationship between intelligence and executive functions, researchers and practitioners can better tailor to enhance not only an individual's overall cognitive performance but also adaptability in real-life situations.
Dejian Mind-Body Intervention cont.

Even with consideration of all these factors and suggestions for further research, it is concluded that value is inherent in the application and further research of the Dejian Mind-Body Intervention and Program for the Education and Enrichment of Relational Skills to Improve Executive Functioning of Children with Autism, given the importance of culturally-relevant approaches and of helping this population.

References


Chanwuyi Foundation Limited (Hong Kong). (2014). Dejian身心療法.

Dejian Mind-Body Intervention cont.


Osterrieth, P. A. (1944). Le test de copie d’une figure complexe; contribution à l’étude de la perception et de la mémoire [Test of copying a complex figure; contribution to the study of perception and memory]. Archives de Psychologie, 30(206–356).


Dejian Mind-Body Intervention cont.


Edited by Dr. Judy Kuriansky, Professor of Education and Psychology at Columbia University Teachers College, teaching the class on “Psychology and the United Nations”; NGO representative of the International Association of Applied Psychology to the United Nations; and Policy Advisor to Ambassador Sidique Wai of the Embassy of Sierra Leone to the United States. Her advocacy about mental health and well-being at the UN in partnership with governments led to its successful inclusion in the UN 2030 Agenda for Sustainable Development, the Political Declaration for Universal Health Coverage and many other agreements. She has authored and co-edited innumerable books on relationship and on international issues, including about the peace in the Middle East, disaster recovery, sexuality education, and Women Around the World and published hundreds of professional articles in world issues and the global goals.
G.L.O.W. Hear Girls Now: Girls’ Rights in the Digital Age

Haiwei Liu

Girls’ voices need to be heard

That was the theme of an event entitled “Hear Girls Now: Girls’ Rights in the Digital Age” held on International Women’s Day, during the 67th session of the Commission on the Status of Women (CSW67) on March 8th, 2023, virtually via Zoom.

Global G.L.O.W. (Girls Leading Our World) is a 501(c)(3) organization that creates and operates innovative mentor-led programs globally with local community-based organizations to equip girls to advocate for themselves and make their communities stronger.

The main point of the panelists was that digital technology can advance girls’ rights and opportunities and has potential to increase access to education, health, and employment opportunities for girls, especially those living in remote and marginalized areas. They also discussed the importance of addressing the digital gender divide and ensuring that girls have equal access to technology and digital skills training.

This girl-led event was also a space for girls to discuss the challenges they face in their communities in general and also specifically in being able to access and fully participate in the digital age. The panel discussion centered on the perspectives of girls from several countries (including Cameroon, Colombia, Kenya, Nepal, Nigeria, and the U.S.), with an interpreter (Isabella) who helped some speakers translate their speeches into English. Solutions to address the inequalities of girls in their communities were also pointed out. The event was meant to galvanize action with allies through an interactive, intergenerational chat discussion with attendees on the virtual platform.

The event started with opening remarks from the moderator, Samantha (first names were used throughout) from Nigeria, who was the main youth host of this event. Samantha explained that Global G.L.O.W. is an organization creates and operates innovative programs to mentor girls to advocate for themselves and make their community stronger. She showed a short film about how Global GLOW is helping women around the world, especially in developing countries.

What G.L.O.W. does

A statement with which all the girls agreed was that “a better world for girls in this digital age should look like. This would be a world where girls have their rights on using and getting knowledge about innovation and technology; where girls won’t have problem to use phones and computers: and where girls can freely choose what subjects to study, including on STEM—science, technology engineering and math.”
Igniting the power of girls as a force for global transformation

A world where girls thrive

Global G.L.O.W., Girls Leading Our World, is a 501(c)(3) organization that creates and operates innovative programs to mentor girls to advocate for themselves and make their communities stronger.

We operate in vulnerable communities in 26 countries, including the United States. We partner with mission-aligned schools, community centers and NGOs that work directly with girls to address their unique, real-time needs.

We mentor and educate girls through three key initiatives.

- **GirlSolve**
  Prepares girls for self-determined futures by addressing barriers girls face in accessing formal economic opportunities.

- **GLOW Club**
  Supports girls in building their self-advocacy skills, emotional wellbeing, educational engagement and community engagement and impact.

- **Healthy GLOW**
  Works to ensure girls have the information they need to stay healthy and maintain healthy relationships and that they make positive choices for their future.

When girls have the opportunity to lead, economies and societies thrive. But there are still many barriers that stand in their way. Our programs are designed to give girls the skills and resources they need to activate change in their communities.
A girl named Adriana from Colombia, shared her opinion on the unique needs and challenges of girls in her community. Saying that “It is crucial to address these challenges to achieve gender equality and empowerment of rural women and girls,” she named the problems of access to quality education and sexual education that are fundamental in preventing early pregnancy and ensuring a better future for girls. The poor infrastructure and difficult access to territories are also significant challenges that need to be addressed to improve the lives of rural women and girls. “We need to work together as a society to ensure that all girls have equal access to education, healthcare, and other opportunities regardless of their location or background,” she said.

A video was shown about how gender inequality is still a major challenge globally, with examples of legal barriers and disparities in labor force participation rates. Imbalance between genders not only denies women equal opportunities and dignity but is also costly for societies. A recent study suggests that including women in the workplace can increase economic benefits, and predicts that gender equality could increase the Gross National Product rate by 35% on average for countries ranking in the bottom-half for gender gap equality. Therefore, providing girls with digital skills and prioritized education can help achieve gender equality in the digital age, where digital skills are highly valued. Technology can also empower girls to become activists and address gender issues that affect them.

A girl speaker in the video mentioned that to address inequality in technology, individuals and leaders need to provide free resources and equitable funding for underfunded schools. Since technology has improved productivity, economic growth, and access to knowledge, it is important for individuals and leaders to take action in addressing the inequality in technology. This can be achieved by offering free resources and providing fair funding for schools that lack the necessary resources. Doing so can help close the gap in access to technology and promote equality for all.
Collectively, the girls from GLOW appealed to individuals and leaders to focus on:

1. Spreading awareness regarding the importance of innovation, technology and education.
2. Expanding the earned income tax
3. Building assets for working families
4. Investing in education
5. Making STEM education important for girls

All the youth during the conference echoed the point that a better world for girls in this digital age involves a more equal society, where girls have access to education, technology, and opportunities, and where their voices are heard and valued. A better world also involves a society free from discrimination, violence, and harmful practices. The youths appealed that people need to work together, as individuals, communities, and governments, to create a better world for girls in this digital age, and to ensure that they have the support, resources, and opportunities they need to thrive.

Throughout the event, the moderator shared a post in the chat inviting the attendees to talk about what we should do to help girls. Youth representatives shared their perspectives and experiences of using digital technology and social media. They highlighted the importance of empowering girls to use technology in safe and responsible ways and the need for greater representation and participation of girls in digital decision-making processes. I collated and summarized some insightful questions and answers.

**Question: Why is it important for girls to have access to technology?**

**Answers:**

An attendee named Cerys Davis answered, saying that people should evaluate the opportunities offered by education and community strength wherever they are located. She said, “In the absence of technology, females may face limited opportunities to obtain medical assistance, education, and guidance. As the world becomes more reliant on digital platforms, it is crucial to provide the best resources available to support the largest number of women and girls. At the university where I am employed, numerous students lack access to the Internet and computers at home, which puts them at a disadvantage when it comes to their education.”
Safalta from Nepal said in the chat that assess to technology is crucial because modern technology enables them to learn about global issues that affect them, and empowers them to tackle these challenges with wisdom. Access to technology equips girls with the necessary knowledge and skills to navigate complex issues and make informed decisions.

**Question: If you’re from rural community what are the unique needs or challenges of girls in your community?**

**Answers:**

The attendee named Cerys Davis (above) also commented on this. She mentioned challenges of early pregnancy due limited ideas of girls about how to better take care of their body, are pressured to have sex for money to provide for survival of the family, or have limited resources to go to school or ability to go to school since girls have to help their parents at home. Girls also don’t know their rights. Another challenge is lack of water for sanitation especially, when they are experiencing their menses.

In another answer, Anushka from Nepal mentioned challenges that girls face. “In my community, there is the belief that when girls are having their periods, they should not enter in the temple, and should not touch the elder people in the house.”

Sylvia Momo from Bafoussam, Cameroon, said, “Girls in my community hardly have access to higher education and when they have it, it is hardly tilted towards the technological sector. This is mainly because the schools for technology and science are very scarce, and parents are reluctant to orientate their girl children towards technological and scientific fields. Girls face unique challenges such as limited access to education due to early pregnancies, limited resources, and need to help their parents. Also, beliefs and cultural practices prevent girls from entering temples or touching elders during their periods. In some communities, there is lack of access to higher education, particularly in technology and science fields.

Some of the key takeaways from the conversation in the chat, in my view, were the need for a multi-stakeholder approach to address these issues, including the involvement of governments, civil society organizations, and the private sector. The panelists also emphasized the importance of centering the experiences and voices of girls in these discussions and ensuring that they have the necessary skills and tools to navigate the digital world safely and confidently. Overall, the females in this conversation highlighted the urgent need for action to address the challenges faced by girls in the digital age and the critical role that technology can play in advancing their rights and opportunities.

A poster was presented at the end of the event showing ideas about how to improve the situation of women and girls. They included: “We need a change in sexist policies and practices” “Policies for girls and by girls” “Better learning opportunities for young girls” “Schools should have resources to provide girls with technology support” “Using technology we can advocate for health, climate change and gender equality” “Technology is important to help develop skills and enhance their economic opportunities.”

In conclusion, the “Hear Girls Now: Girls’ Rights in the Digital Age” event provided a platform for meaningful dialogue and engagement on a critical issue affecting girls worldwide. The discussions and recommendations made during the event are intended to be used to inform policy and programming aimed at advancing girls’ rights and opportunities in the digital age.

**Personal Reflections**

From the CSW67 “Hear Girls Now: Girls’ Rights in the Digital Age” event, I learned about the ongoing challenges that girls and women face in achieving gender equality. The event highlighted the need to address issues such as access to education, healthcare, economic opportunities, and legal rights. The event also emphasized the potential of technology and digital
skills in promoting gender equality and empowering girls and women. By providing access to free resources and equitable funding for underfunded schools, individuals and leaders can help close the digital divide and promote gender equality. Additionally, I think the event showcased the importance of amplifying the voices of girls and women and creating spaces for them to become activists and advocates for gender equality. By listening to, and involving, girls and women in decision-making processes, we can ensure that their perspectives and experiences are considered and that they are empowered to drive change in their communities. Overall, I think it is meaningful that this conference was held on International Women's Day, since the event highlighted the ongoing work that needs to be done to achieve gender equality and the critical role that technology, education, and empowering girls and women can play in promoting positive change.

EVENT OVERVIEW

TITLE: Hear Girls Now: Girls’ Rights in the Digital Age

CONFERENCE: the 67th session of the Commission on the Status of Women (CSW67)

Date/Time: Wednesday, 08 March 2023, 9AM-11AM

Location: Zoom virtually

Moderator: Samantha


Reference


Reported by Haiwei Liu, a member of the Student Division of the International Association of Applied Psychology (IAAP) pursuing a masters’ degree in the Department of Developmental Psychology, Columbia University Teachers College, and a student in Professor Judy Kuriansky’s class on “Psychology and the United Nations.”

Edited by Dr. Judy Kuriansky, Professor of Education and Psychology at Columbia University Teachers College, teaching the class on “Psychology and the United Nations”; NGO representative of the International Association of Applied Psychology to the United Nations; and Policy Advisor to Ambassador Sidique Wai of the Embassy of Sierra Leone to the United States. Her advocacy about mental health and well-being at the UN in partnership with governments led to its successful inclusion in the UN 2030 Agenda for Sustainable Development, the Political Declaration for Universal Health Coverage and many other agreements. She has authored and co-edited innumerable books on relationship and on international issues, including about the peace in the Middle East, disaster recovery, sexuality education, and Women Around the World and published hundreds of professional articles in world issues and the global goals.
Women’s Education and Mental Health: Confirming a bidirectional relationship

Pengcheng Chen

Education and mental health are two topics of grave concern globally and for the United Nations. This is especially true, given the serious impact the COVID-19 pandemic has had on both interrupting student’s education due to school closures, and on escalating mental distress by stress and isolation caused by the disease spread control measures. Women and girls have been disproportionately affected.

For that reason, the American Psychiatric Association presented an event during the United Nations Commission on the Status of Women to address this issue.

The event was entitled “Women's Education and Mental Health: A bidirectional relationship confirmation” to elucidate how education and mental health are interrelated.

The event was sponsored by the New York County Psychiatric Society (NYCPS) which is a committee of the American Psychiatric Association (APA), which is a professional organization of psychiatrists in the United States, the largest psychiatric organization in the world, and an accredited nongovernmental organization (NGO) at the United Nations. The Committee strives to decrease the burden of mental illness in individuals and communities worldwide through education and advocacy, and to inspire change by bridging its own mission with that of the United Nations to achieve the Sustainable Development Goals set forth in the UN 2030 Agenda. For more information about NYCPS, contact: unliaisonctte@nycpsych.org

This event addressed the UN agenda 2030 for Sustainable Development, specifically SDG 4 about education and target 3.4 about promoting mental health and wellbeing, with a specific focus on women, therefore also addressing SDG 5 about the empowerment of women and girls.

Background

To accomplish its goals, the New York County Psychiatric Society organizes events to coincide with issues and conferences related to the United Nations. One of the largest such UN conferences is the UN Commission on the Status of Women (CSW) held annually at the UN New York headquarters in March. There are two streams of meetings, one mainly for governments and registered CSW representatives, and another for the NGO (civil society) community, which is held “parallel” to these meetings. The latter, named the CSW NGO/NY Forum, can accommodate a much
broader audience and participants, both those who are already related to the UN system and even for the public. Thus, the NYCPS organized a parallel event during this CSW conference.

This year, given that the spread of COVID-19 and its variants was more under control, some meetings were in-person, but most were held virtually, to accommodate more events and participants around the world, especially those who could not come to the New York UN headquarters. The usefulness of the virtual format was a lesson learned during the pandemic when all meetings were online, leading to the realization that more access for all was a positive outcome to be continued.

### The event

The parallel event was held on March 16, 2023, from 3PM-5PM EST.

The agenda had four goals:

- A brief review of gender gaps in education and the impact those have on women’s lives.
- Assessment of the impact of education in mental health.
- Determining the impact of mental health problems in education.
- Describing the role of technology in helping close the gap between the needs of people and the services available.

**The event can be seen to be in five parts:** In Part 1, women “on the ground” told their personal stories and struggles about education and mental health. Part 2, topics 1, 2, 3 and 4 were presentations by experts, respectively on the topics of “Gaps in education” “The impact of education on mental health” “Consequences due to mental health problems” and “The role of technology in helping close the gaps.”

Razia, from Pakistan, shared her personal experiences regarding challenges faced by her children and grandchildren due to a lack of education resources. She expressed concern that the limited availability of educational resources is hindering their ability to obtain a quality education and prepare for a successful future. Razia said that “lack of resources is particularly problematic for those living in rural areas, where access to education is already limited. Without adequate resources such as textbooks, technology, and well-trained teachers, students in these areas are at a disadvantage and struggle to compete with their peers.”

The cost of education is another significant barrier for families in Pakistan, she noted, with many unable to afford the fees for private schools. Razia’s personal account highlighted the critical need for increased investment in education resources in Pakistan, particularly in rural areas, to ensure that all children have access to quality education and equal opportunities to succeed.
In another personal story, Dora from Mexico shared her story of starting a kindergarten in a rural community after graduating from college. She recounted numerous challenges during this endeavor, including lack of resources and infrastructure in the area. As a result, she had to start from scratch, building the school building and furnishing it with chairs and tables. At first, only a community room was available, where “children had to sit on pieces of wood during class”, she described. Despite these challenges, she remained committed to her goal to provide quality education to children in the community. She worked tirelessly to create a safe and welcoming learning environment for her students.

In my view, Dora’s story demonstrates the power of education to transform lives and communities, as well as the determination and resilience required to make a difference. It also highlights the critical need for investment in education infrastructure in rural areas to ensure that all children have access to quality education and equal opportunities to succeed.

Next to speak, Dr. Naomi Oyemwense, M.D., a healthcare provider located in Valhalla, New York, spoke about urban and rural disparities in education, focusing on her home country of Nigeria. She mentioned that compared to rural settings, better and wider resources are available for training in college in an urban environment, in fields like medicine, healthcare and engineering.

“In contrast, rural areas have fewer resources,” she said, “especially fewer teachers, and many students terminate at middle school, but may want other training or internships.”

She also addressed the other topic in this event, that of gender disparity. Regarding gender differences in education, she said, females in both settings have more difficulties in rural and urban areas compared to men. While women in urban settings often have higher education and potential almost equivalent to males, and more skills compared to women in rural areas, this is partly because rural women are often disadvantaged in that they are “often trapped in marriage, where the husband decides the wife cannot pursue education”.

While situations are currently somewhat improving in rural areas for the younger generations, Dr. Oyemwense said, people in urban areas still tend to have higher education levels and better understanding of mental health and various disorders, compared to those in rural areas. This is particularly the case in villages, where people attach disparaging labels to mental health issues, stigmatizing mental health. The stigma is twofold, as it is directed to the self for those who feel mentally stressed and comes from others. This makes it difficult to discuss these issues openly. In cases where a family member has a mental health issue, the entire family usually faces negative judgment from others in the community. But, she explained, people in urban areas with higher levels of education have an advantage, by having better access to information and mental health resources compared to less educated individuals.

Mental health issues also significantly impact a child’s academic performance, she said, particularly when they lack access to resources or have mental health disorders.
Part 2

In Part 2 of the session, experts addressed various aspects of the main subject of “Women’s Education and Mental Health.” Five topics were addressed by different experts. These are described below.

**Topic 1: “Gaps in education”**

The presenter on this topic was Dr. Anum Khan, M.D., a psychiatrist in New York. She described two main gaps in education: resources and security.

The state of global education is dire, she said, leaving children without access to essential resources needed for their education. For example, there is a severe shortage in teachers, given that an estimated 69 million teachers are needed to provide adequate education for children around the world.

Additionally, there is a staggering shortage of US$200 billion dollars in educational funding.

Further, in some countries, she pointed out, a single book is the only resource available for multiple children, highlighting the scarcity of educational materials. Also, basic facilities, such as potable water, are lacking in many areas. These challenges must be addressed urgently to ensure that every child has access to quality education, regardless of where they live.

Also, safety concerns pose a significant barrier for many children, especially girls. She explained that the difficult commute to schools and lack of security personnel and toilets, make it unsafe for females in some areas, which results in girls dropping out of school. Also, conflict in regions, currently like in Ukraine and Syria, make it impossible for children to attend school. These issues highlight the need to prioritize safety concerns in education policy and infrastructure development, she concluded, to ensure that all children have access to safe and secure learning environments.

Solutions offered by Dr. Khan included: the importance of global mental health initiatives, government support, community response, women helping mobilize resources, and addressing barriers to education.

She reiterated the main barriers to education, pointed out by other speakers in the panel, such as limited resources and security concerns, and the significant impact of these on mental health. Lack of adequate resources, including textbooks, technology, and well-trained teachers, leads to low academic performance and negatively impacts students’ self-esteem and confidence, she said. This creates a cycle of frustration and hopelessness, which further exacerbates mental health issues, such as anxiety and depression.

A vicious cycle ensues. Security concerns, such as violence or bullying, create a sense of fear and isolation among students, which lead to disengagement from social activities and consequently, a lack of social support. This lack of social engagement further worsens mental health, consistent with considerable research proving that social connections are essential for mental well-being.

The impact of these barriers to education is particularly acute for students in rural areas and those from low-income families, who face additional challenges, such as a lack of access to healthcare and other support services. Addressing these barriers to education and improving access to quality education and mental health services is crucial to ensure that all students can thrive and reach their full potential.

Dr. Khan also talked about regions with significant gender disparities in education.

“In Australia, mental health distress in women aged 55 to 64 rose sharply since 2001, with older women going from the lowest to the second-highest category in 2018,” she said. On average, single mothers report poorer mental well-being. In North America, one in five individuals is diagnosed with a mental illness, with women being twice as likely as men to be diagnosed with depression, anxiety, or personality disorders. In Africa, an alarming 85% of individuals
Women's Education and Mental Health cont.

diagnosed with depression do not have access to treatment, with 66% of this population being women. In Europe, only 1 in 3 people living with depression receive the care they need.

Thus, access is a problem. Another problem is funding. In most low- to middle-income countries in Asia, only 1% of the national budget is invested in mental health, despite women in low-income households being more likely to experience gender-based and intimate partner violence. In countries in Central and South America, medical public expenditure allocated to tackling the mental health burden is only 3%.

Global education disparities are most evident in regions like Africa, she noted, where nine out of the ten countries with the worst education systems are in Sub-Saharan Africa. Shockingly, she pointed out, “An estimated nine million girls between the ages of 6-11 years will never attend school in this region. In Asia, 128 million children were already out of school before the pandemic hit, with the situation likely to have worsened since then. Meanwhile, in the Americas, teen pregnancies are a significant factor in educational dropouts, with as high as 36% of these dropouts attributed to this cause.” These statistics emphasize the urgent need to address the systemic barriers to education in these regions and to ensure that every child has equal access to quality education.

Topic 2: “The impact of education on mental health”

The presenter was Dr. Anna Costakis, M.D., Assistant Professor at the Donald and Barbara Zucker School of Medicine at Hofstra/Northwell Health in New York, USA. She underscored the need for a gender-sensitive approach to mental health, which considers the unique experiences and challenges faced by women in relation to their mental health. She pointed out that awareness about this issue dates to 1996 in work by the World Federation of Mental Health (1996), a mental health advocacy organization. The interconnections are gaining more attention now.

The cycle of social and economic development (source: Kober, 2016). Educational opportunities for adolescent girls’ empowerment in developing countries)

Dr. Costakis made a clear association between academic progress and social-emotional outcomes. Specifically, she pointed out that:

Academic failure and lack of progress relate to negative cognitions, which predicts depressive symptoms.

Academic difficulties predict poorer mental health, lower socio-economic status (SES), greater deviant behavior, and incarceration.

Gender inequality is a significant issue around the world, she continued, with women facing greater levels of poverty and food insecurity. Statistics show that 70% of the world’s 1.2 billion people who live in poverty are women. This is due to a range of factors, including lack of access to education, healthcare, and employment opportunities.

The impact of gender inequality is particularly acute in terms of food security, as the majority of the world’s undernourished are women and girl children. This is due to cultural norms and practices that prioritize males’ access to food, as well as the fact that women often have limited control over household resources. This gender disparity in access to food and resources
Women's Education and Mental Health cont.

can lead to malnutrition and other health problems for women, which can have long-term consequences for the women and their families. Addressing gender inequality and ensuring that women have equal access to education, employment, and resources is crucial for promoting sustainable development and ending poverty and food insecurity. This point is supported by research (e.g., Kober, 2016).

Education is the key to unlocking power, promoting health, improving nutrition, and achieving higher economic well-being. Dr. Costakis, said, mentioning a cycle of social and economic development also supported by research (Kober, 2016). Education is key to empowerment of women and girls, called for in SDG5. “Empowering girls is crucial for promoting gender equality and improving overall social and economic development,” she said, connecting education, independence, and leadership.

Completing education is the first step towards empowering girls, helping them develop skills, knowledge, and confidence. Educated girls are more likely to find employment and contribute to their communities. Girls need to be economically and mentally independent to achieve empowerment. Independence allows girls to pursue their own goals and aspirations without being limited by traditional gender roles or societal expectations. Developing leadership skills is important for girls to become advocates for their own rights and work towards achieving gender equality. Girls who become leaders are more likely to inspire other girls to pursue their own goals and aspirations. Thus, empowering girls through education, independence, and leadership is essential for promoting gender equality and improving overall social and economic development.

Taking a systems view, Dr. Costakis said, “By educating the whole family, advancing development and social status among women, and providing protection against domestic violence, we can create an environment where girls are supported and encouraged to achieve their full potential”.

Continuing to explain the cycle of all these issues, Dr. Costakis said, “Women's health is inextricably linked to their education, economic and social status,” adding, “Women and girls who have limited access to education and economic opportunities are more likely to experience challenges such as child and teenage marriage, early motherhood, maternal mortality, and violence against women, which all impact their mental and physical health. Child and teenage marriage can lead to early pregnancy and childbirth, which increases the risk of maternal and infant mortality, as well as other health complications.”

Similarly, early motherhood can have negative consequences for the physical and mental health of young mothers, as well as their children. Maternal mortality rates are also higher among women with limited access to education and economic opportunities, as they are less likely to receive adequate health care during pregnancy and childbirth. Furthermore, violence against women can result in long-term health consequences, such as anxiety, depression, and PTSD.

“These issues highlight the importance of addressing gender inequality and promoting women's access to education, economic opportunities, and healthcare, to improve women's health outcomes and create a more equitable society,” explained Dr. Costakis.

Dr. Costakis emphasized the clear link between education and mental health. Studies have revealed that certain groups of people are at a higher risk of experiencing mental disorders. Specifically, those with lower levels of education, low household income, and limited access to basic amenities are more vulnerable to developing mental health issues. She said, “Research has indicated that individuals who are illiterate and unemployed are at the highest lifetime risk of developing affective disorder, panic disorder, generalized anxiety disorder, specific phobia, and substance use disorders. These disorders have been strongly associated with deprivation and poverty, as evidenced by studies conducted in India.” Therefore, she said, it is crucial to prioritize addressing
socio-economic disparities to prevent and manage mental health problems in vulnerable populations.

Two major future directions emerge, in her view:

Given the importance of mental health, then, educational systems, opportunities, and academic requirements should focus on the student.

It is essential to ensure that women are empowered to have a voice about their own issues.

In summary, she reiterated her main points. Access to education is a powerful tool for empowering women to express that voice, and to promote gender equality. Women who have access to education are better equipped to make informed decisions about their lives, health, and well-being. Education also helps women develop critical thinking skills, which enables them to challenge traditional gender roles and discrimination and to participate more fully in social and economic life. In this sense, education is not only a means of personal empowerment but also a tool for social change. Women who have access to education have a duty to use their privilege and knowledge to help other women gain empowerment. They can use their voices and influence to shape institutions and policies that promote gender equality and support the education and empowerment of women and girls. By doing so, they can help break the cycle of poverty and discrimination that affects so many women and girls around the world.

Ultimately, she concluded, ensuring that all women and girls have access to education and opportunities for empowerment is not only a matter of social justice, but is also essential for sustainable development and the well-being of societies.

**Topic 3: “Consequences due to mental health problems”**

The presenter was Dr. Ludwing Salamanca, M.D., Ph.D., a psychiatrist at New York-Presbyterian Hospital-Columbia and Cornell in New York City. He summarized the consequences of mental health problems, particularly for children.

Identifying mental health issues in children can be challenging due to a range of factors, he explained. One of the biggest problems is that children may not feel comfortable expressing their emotions or sharing their concerns with adults, as they may believe that adults will not understand them. This creates a barrier to early identification and intervention. Another challenge is lack of training and interest from staff, who may not have the required skills or knowledge to recognize mental health issues in children. This can lead to misdiagnosis or a failure to provide appropriate support.

Additionally, schools may have competing priorities, such as academic achievement and budget constraints, which can make it difficult to prioritize mental health support. As a result, mental health issues go unrecognized and untreated, leading to more severe problems for young students later in life.

Thus, he emphasized, it is crucial for schools and educators to prioritize mental health training and support and to create a safe and supportive environment where children feel comfortable sharing their concerns and receiving appropriate support. This leads to early identification and intervention, thereby reducing the risk of long-term mental health problems.

On a more optimistic note, he said that despite these challenges in identifying mental health issues in children, there are also opportunities for schools and educators to provide effective support. One opportunity is to improve identification of youngsters who need help early on in a proactive approach, through regular mental health screenings and assessments. Additionally, schools can implement interventions, such as “take a moment” or mindfulness exercises, to help children manage stress and anxiety. On-site trained staff, including counselors and mental health professionals, can provide immediate support to students in need. Educator training can also improve recognition of mental health issues and equip teachers with skills to support students in a compassionate and effective manner.
Moreover, having on-site mental health providers can provide a range of services such as individual and group therapy, which helps reduce stigma associated with seeking mental health care.

Other approaches are to connect students and families with outside resources, such as community mental health centers, that can provide additional support beyond what is available at the school. Coordinating with families to create a collaborative approach to support the child is also beneficial, he said. Finally, providing support for families themselves has a positive impact on children’s mental health, as it creates a supportive home environment that can aid in the child’s adjustments and coping. These opportunities provide effective support to children experiencing mental health issues and improves their overall wellbeing and changes for academic success.

**Topic 4: “The role of technology in helping close the gaps.”**

The presenter on this issue was Dr. Anish Dhamija, M.D., Clinical Director of the Crisis Prevention and Response Team at Columbia University in New York.

Dr. Dhamija mentioned that capacity-building is essential to address the challenges of providing effective HIV care and behavioral health services. Externally, attendings and residents of hospital staff can participate in training programs that teach them how to better address HIV and that build their capacity to provide high-quality care. These programs should not be one-time events but rather an ongoing effort to continuously improve the workforce.

Behavioral health liaisons from U.S. institutions can collaborate with local providers to offer training and support, building the capacity of the local workforce to deliver evidence-based care. At the local level, task-sharing can be employed to address the shortage of professional providers. This involves recruiting interested individuals to provide support, reducing the stigma associated with mental health care, and referring clients to professional providers when needed.

Additionally, teaching programs for healthcare providers can be implemented to increase their knowledge and skills in providing effective HIV and behavioral health care. These efforts can improve the quality of care provided to people living with HIV and behavioral health issues, building capacity, and reducing the burden on existing providers.

Other ways to build capacity mentioned by Dr. Dhamija involved technology tools, including e-learning; social media; and mental health apps. In current times, more innovative apps are being developed. Innovative apps can be a useful tool in improving the delivery of healthcare services. One example, an app called “The Hope Assist Clinic Workflow” shows how technology can be used to streamline patient care. The app allows patients to complete screening assessments on their phone, using a keypad to answer questions. This information is then sent to the healthcare provider, who reviews the results and provides treatment recommendations when necessary. Patients can then meet with the doctor and share their results directly from the app, which improves the efficiency of the clinic workflow. For those who require ongoing care, the app can facilitate treatment by providing alerts about follow-up appointments and reminders to help stay on track with the treatment plan. Such innovative apps improve the patient experience and increase engagement with healthcare services, leading to better health outcomes. Moreover, using such technology tools, he said, reduces the burden on healthcare providers by automating some tasks, allowing time to focus on more complex issues and provide better care to patients who need it.

**Summary**

In summary, the event focused on the important relationship between women’s education and mental health, highlighting how each impacts the other. The discussions shed light on the positive effects education can have on mental health and the negative effects poor mental health can have on educational outcomes for women. The participants also identified
Women's Education and Mental Health cont.

the challenges faced by women in accessing education and mental health resources and discussed potential solutions to address these issues.

Personal Reflections

I enjoyed this event because this conference talks a lot about women's health and education, and about what technology can do for women's development. Overall, the event was enlightening and thought-provoking, and it is expected that the knowledge and insights gained will be useful in improving the educational and mental health outcomes for women. In my opinion, the most significant direct link between a lack of education and mental health is the adverse effect it has on individuals' ability to approach mental health with a scientific and accurate perspective. When mental health conditions are not widely understood, those people experiencing symptoms feel that something is inherently wrong with them and thus, do not seek medical attention. The pervasive stigma of mental illness leads to feelings of guilt and self-blame, which further inhibits seeking effective treatment. Widespread adoption of public psycho-education can enhance individuals' understanding and treatment of mental illness, leading to a greater number of people viewing it as a common condition rather than a result of personal weakness or an inability to manage stress. Since women are more disproportionately affected by this complex of problems, education and funding is urgent to increase women's ability to function well in their personal, family and community life.

The event details

Conference as part of the NGO CSW67 Forum

Date/Time: Thursday, March 16, 2023, 3:00PM–5:00PM

Location: Virtual Meeting

Event Link: https://ngocsw67forum.events.whova.com/Agenda/2861814

Panelists: Dr. Anna Costakis, MD, Assistant Professor, Donald, and Barbara Zucker School of Medicine at Hofstra/Northwell Health; Dr. Anish Dhamija, MD, Clinical Director, Crisis Prevention and Response Team, Columbia University; Dr. Anum Khan, MD, a psychiatrist in New York and Dr. Ludwing Florez Salamanca, MD, PhD, a psychiatrist at New York-Presbyterian Hospital-Columbia and Cornell.

Contact information: NYCPS: unliaisonctte@nycpsych.org

References


Reported by Pengcheng Chen, a member of the Student Division of the International Association of Applied Psychology pursuing a masters' degree in the Department of Clinical Psychology, Columbia University Teachers College, and a student in Professor Judy Kuriansky's class on “Psychology and the United Nations.” Apart from my academic pursuits, I have a strong interest in cognition and psychopathology. Furthermore, I am interested in learning about countries with limited resources and less favorable health environments who want to advance their healthcare systems and improve health literacy for their people.
Women's Education and Mental Health cont.

in the UN 2030 Agenda for Sustainable Development, the Political Declaration for Universal Health Coverage and many other agreements. She has authored and co-edited innumerable books on relationship and on international issues, including about the peace in the Middle East, disaster recovery, sexuality education, and

Women Around the World and published hundreds of professional articles in world issues and the global goals.
Global Citizenship Education for Clean Water and Cleaner Energy

Jiao Zheng

Introduction

Water has long been linked to magic, miracles, and myths across human history. Indeed, water is magical, existing in distinct forms such as solid, liquid, and gas; it brings about miracles by giving life to all living beings on Earth, nurturing and sustaining them until they ultimately return to the water and become a part of it. As the lifeblood of civilization, water features prominently in ancient Indian Vedas, Mesopotamian myths, and Mayan legends, all of which portray vast, primordial oceans as the cradle of the world. Similarly, Hebrew and Egyptian narratives underscore the significance of water in the genesis of the universe, while Native American and sub-Saharan African myths further emphasize the connection between water and the origin of humanity (Witzel, 2015).

Although we have been living with water for millions of years, even scientists and people in general know little about it (Chaplin 2001). However, it seems we are having a worse relationship with water in these current times. This is evident in the United Nation warning the world that, by 2030, given the present pace of development, an estimated 1.6 billion individuals will be without access to safely managed drinking water, 2.8 billion people will lack access to safely managed sanitation, and 1.9 billion people will be without basic hand hygiene facilities, (UN DESA, 2022).

The event

On March 23, 2023, a meeting was held where 13 speakers with backgrounds from diverse fields including academia, the private and public sectors, United Nations Member States, and UN agencies, discussed actions and potential for global collaboration about the Global Citizenship Education for Clean Water and Cleaner Energy. The event was held in person (which I attended) at a hotel across from the UN.
United Nations headquarters in New York City, and also available virtually for viewing by Zoom.

During the meeting, the importance of multi-global partnerships was continually emphasized. The Global Greening Education Project, who hosted the event, aimed to advance collective efforts towards achieving multiple UN Sustainable Development Goals in the UN Agenda 2030 for Sustainable Development, including SDG 4 (Quality Education), SDG 6 (Clean Water) and SDG 7 (Affordable and Clean Energy), and also SDG 8 (Decent Work and Economic Growth), SDG 9 (Industry, Innovation and Infrastructure), SDG 11 (Sustainable City), SDG 14 (Life Below Water), SDG15 (Life on Land), and SDG 17 (Partnership).

This broad inclusion of so many experts addressing so many SDGs sought to explore how diverse stakeholders could effectively collaborate and scale up the project’s impact globally.

Introduction

The moderator was Dr. Eunhee Jung, a representative of an NGO that is in consultative status with the United Nations Economic and Social Council (ECOSOC) and association with the UN Department of Global Communications (DGC). Dr. Jung is the founder and president of IVECA International Virtual Schooling, an NGO that committed to creating a more peaceful and sustainable world through the power of education, and also, the CEO of Intercultural Virtual Exchange of Classroom Activities in Korea (IVECA-KOREA). She began the meeting by asking the audience to reflect about their motivation for attending the event on Global Citizenship Education for Clean Water and Cleaner Energy, and specifically, if they were drawn to the concepts of multistakeholder partnership, global citizenship education, clean water, or clean energy? She also encouraged the audience to enjoy the food that was offered during the event, explaining that food is an essential aspect of making meaningful connections and celebrating shared ideas across various cultures.

Opening Remarks

Dr. Hesham Elnakib, Ambassador Extraordinary of Egypt and Adjunct Professor of American University D.C. gave the opening remarks.

Dr. Elnakib addressed the pressing issue of water scarcity and its connection to global citizenship. Despite the fact that it was raining outside on this day, he emphasized that many regions, including his homeland of Egypt, are facing increasingly dire water scarcity. He introduced a recent UN report which indicates that water scarcity is rising incrementally and will affect a significant portion of the global population by 2050 (United Nations Educational, 2023). Dr. Elnakib continued to stress the importance of collective efforts among governments, NGOs, and the UN community to achieve the Sustainable Development Goals. Furthermore, he expressed that the benchmarks set for achievement of the SGs by the year 2030 (UN DESA, 2022) cannot be reached without global citizenship and collective human effort in support of global citizenship education. In the end, he praised IVECA International Virtual Schooling’s efforts to bring together stakeholders from various industries to collaborate on recycling technology, minimizing plastic waste, and conducting research in partnership with Korean companies.

The next speaker, Mr. G. Asok Kumar, is Assistant Vice Minister of the Ministry of Waterpower in the Government of India.

Mr. Kumar stated the importance of global citizenship and India’s long-held belief in the interconnectedness of the world. He went on to introduce the river Ganga rejuvenation project, one of the largest river...
restoration programs in the world, which had recently been awarded for its eco-restoration efforts. Mr. Kumar attributed the project’s success to its collaboration with various organizations and a multidisciplinary approach that focused on keeping the river clean, such as reuse of treated water, involvement of religious institutions, and promotion of sustainable agriculture to prevent chemical fertilizers from polluting the river. It was heartening to learn that several interventions have been initiated, such as fish and fishery conservation in the Ganga River, Ganges River Dolphin conservation education program (Simon & Joshi, 2022). At the end of his speech, he promoted a campaign called “Catch the Rain”, a decentralized effort to store rainwater and avoid building large dams. He concluded by expressing his hope that universities and students would continue to work together to promote water security for future generations.

Mr. Won-soo Kim spoke next, in his capacity as Head of the Global Academy for Future Civilization of Kyunghee University and chair of the International Advisory Board of the Taejae Academy (Future Consensus Institute). He expressed regret for sending a video recording and not being able to join in person. In the video, Mr. Kim discussed pressing issues facing the planet, such as marine plastic pollution and the limitations of waste disposal through recycling and emphasized the need for global citizenship and collaboration to address these challenges. The goal of this meeting, he said, was to contribute to achieving the Sustainable Development Goals through public-private partnerships and global citizenship education.

Panels of speakers followed.

Panel Presentations 1 was on the topic of “WATER and LIVES”

The first speaker was Dr. William Gaudelli, Dean of the College of Education at Lehigh University in Pennsylvania, USA.

Dr. Gaudelli stressed the importance of collaboration between different sectors to achieve the SDGs. He drew attention to the vital role of water in people’s lives, and the scarcity of water, underscoring the need for sustainable and equitable distribution. He also referred to UNESCO's conception of global citizenship, which encompasses five domains: tolerance, peace, sustainability, inclusivity, and security (Education 2030, 2016). He shared some examples from Lehigh University, where efforts are being made to connect global issues with students’ daily life. He mentioned several student-led initiatives, such as raising awareness about microplastics, studying water consumption on campus, and creating virtual field trips for environmental education. In his conclusion, Dr. Gaudelli stressed the importance of habituating ways of thinking that connect global issues with everyday experiences, enabling students to understand and engage with these challenges more effectively. He emphasized taking note of habituated thinking that links global issues with daily experiences.

The next speaker, Dr. Sarantuya Zandaryaa, is the Programme Specialist in the Division of Water Sciences and the Intergovernmental Hydrological Programme (IHP) of UNESCO. She highlighted the value of various initiatives like citizen science, education for sustainable development, and global water museums. She discussed the emerging challenge of pollutants and
microplastics in water sources, noting that pollution starts with consumer choices. She promoted the idea by using examples of pharmaceuticals and microplastics in aquatic environments and urged responsible consumption to reduce pollutant discharge into water resources. In conclusion, Dr. Zandaryaa urged the audience to raise awareness, educate citizens, and engage youth to become actors in addressing global water issues and promoting clean water, thereby drawing attention to the importance of responsible consumption referred to SDG 12.

Ms. Jayashri Wyatt, Chief of the Education Outreach Division at the United Nations Department of Global Communications (DGC), was the next speaker. She emphasized the importance of understanding water as life itself, rather than merely a resource to be managed. She highlighted the need for transformative education to change our understanding of the world and mentioned the Universal Declaration of Human Rights, which recognizes the human right to access clean water and education (UN. General Assembly (64th sess: 2009-2010). Ms. Wyatt then provided two examples of universities in her network working on these issues. The “Tall Ship Program” at the University of Bergen in Norway allows students to collaborate and understand the interconnectedness of our oceans. Also, the University of Manitoba in Canada, an SDG hub for clean water and sanitation, works closely with indigenous communities to address access to clean water.

Next to speak was Dr. Mariel Friberg, Assistant Research Scientist at the University of Maryland and NASA Goddard Space Flight Center.

She drew attention to the alarming increase in plastic waste worldwide, which is projected to reach 1,000 million tons by the year 2050 (Geyer, 2020). She further pointed out that only 10% of plastic waste is currently being recycled, and emphasized the need for better waste management systems and policies. Dr. Friberg also illustrated the impact of plastics on climate change, indicating that if there were no action, plastics could account for 13% of the entire remaining carbon budget by 2050 (Plastic & Climate: The Hidden Costs of a Plastic Planet - Center for International Environmental Law, n.d.). In wrapping up, she stressed the importance of collaboration among stakeholders, education, and governments in order to develop effective solutions, such as the use of satellite technology to observe and quantify plastic pollution from space, to mitigate the negative effects of plastic waste on the environment, human health, and climate.

Panel Presentation 2 was on “Taking Part in Action.”

The first speaker in this panel was Dr. João Ribeiro-Bidaoui, General Counsel & Director of Global Public Affairs at the non-profit The Ocean Cleanup, an NGO with the mission of cleaning up the world’s oceans from plastic pollution. Dr. Ribeiro-Bidaoui discussed the largest ocean cleanup in history (Kershaw et al., 2011), highlighting the need for a two-pronged strategy to stop plastic leakage from rivers and clean up existing pollution. The “Great Pacific Garbage Patch” was a key focus, with identifying the fishing industry as a significant source of plastic waste. The Ocean Cleanup organization has been working on developing tailored technology solutions, ranging from high-tech to low-tech methods, to intercept plastic waste in 1,000 rivers that are responsible for 80% of leakage. Dr. Ribeiro-Bidaoui believes their work acts as a catalyst for policy and behavioral change and foster collaboration. They have partnered with various governmental bodies, including the Netherlands, United
Global Citizenship Education cont.

Nations Development Programme (UNDP), Asia-Pacific Economic Cooperation (APEC), and Association of Southeast Asian Nations (ASEAN). They plan to launch an Innovation Alliance for a global plastic treaty to bring together innovators in the discussion.

The next speaker was Mr. Gi-woong Choi, CEO at Eco Flame, Korea Technology and Engineering Possibility to Contribute to Clean Water and Cleaner Energy, a company specializing in the research and development of low-carbon combustion systems, marine waste and plastic pyrolysis oil production, and eco-friendly heating and electric power generation system operation. Mr. Choi provided an overview of the traditional methods of plastic disposal such as recycling, landfill, incineration, and pyrolysis oil. Out of these, he highlighted the potential of pyrolysis oil as a transformative solution for plastic disposal. He also introduced a new technology called “Eco Flame” combustion technology, which he believes to be the way forward for the industry. Eco Flame’s core technology involves ultra-fine particle injection and hydrogen generation systems that create flames hotter than 1,000 degrees, reducing air pollutants. He shared that Eco Flame was already being implemented in Korea to transform the marine environment and significantly reduce costs. He concluded by expressing his hope and confidence in technologies like Eco Flame and the persistent efforts of individuals to save the world.

“We really could do this,” Mr. Choi said, reflecting his belief with the right technology and collective efforts, it was possible to tackle the plastic disposal crisis.

Mr. Gi-woong Choi demonstrated and promoted the new technology: Eco Flame

Following next was Dr. Jin-woo Lee, Director of Technology Development Division at Dohwa Engineering HQ, an unrivaled multidisciplinary engineering firm in Korea.

He began his presentation by introducing the work of his eco-friendly engineering office, which focuses on designing and constructing environmentally and climate sustainable
Global Citizenship Education cont.

projects. With 66 years of experience in engineering services across various sectors, including water and wastewater, he highlighted the significance of his research and development efforts in transforming waste, such as overgrown seaweed, into resources like bioplastics. In addition, he discussed the design of incineration and energy circulation systems that convert waste to energy for heating and electricity, while minimizing pollution and emissions. Dr. Lee emphasized the importance of collaboration between governments, organizations, and innovative engineers in addressing environmental problems. He also highlighted the significance of education and participation in raising awareness of environmental issues among the younger generation.

Ms. Aishu Narasimhadevara was next to speak. A Ph.D. Candidate at Chulalongkorn University in Thailand, and former Youth Mentor for IVECA, Ms. Narasimhadevara participated as a youth mentor in the IVECA global virtual summer camp in 2022. The camp's theme focused on employing “new era diplomacy,” a concept that adapts diplomacy to the digital age by utilizing all available soft power resources, including science, technology, and culture, to achieve the SDGs. During the camp, Ms. Narasimhadevara’s team collaborated with students from the Incheon region in Korea to tackle a global challenge with a focus on soft power. They came up with a solution of a “gum gun bottle” made of seaweed, for which they presented a plan to collaborate with Korean companies and government agencies to produce and promote at international climate change and innovation conferences.

Closing Remarks

The first of two closing remarks for the meeting was given by Ambassador Sangjin Kim, Deputy Permanent Representative of the Republic of Korea to the United Nations.

He recounted his own experience of struggling with water scarcity and pollution while working as a young diplomat in a developing country in Africa. He recalled the difficulties faced when access to underground water was interrupted due to electrical issues and the realization that polluted water caused skin diseases. This experience highlighted the significance of water as a fundamental human right. The Ambassador stressed the need
Global Citizenship Education cont.

for collective action to confront the global water crisis, and expressed his gratitude to the panelists for their valuable contributions. He urged a collaborative partnership between multiple stakeholders to address the interconnected issues of climate change, water scarcity, and energy crises. Finally, H.E. Kim reiterated Korea’s dedication to advance green research and development, as well as implement policies that promote a more circular economy.

The second closing remarks were made by Dr. Liberato (Levi) Bautista, the President of CoNGO—the Conference of Non-Governmental Organizations in Consultative Relationship with the United Nations—who is also the main NGO representative to the UN for the United Methodist Church—General Board of Church and Society (GBCS), the international public policy and social justice agency of The United Methodist Church. He has been an NGO representative at the UN for the last 25 years. Also, an ordained United Methodist minister, who was previously president of the Committee of Religious NGOs at the United Nations. He has taught politics and civil society at Kyung Hee University in Seoul, Korea, and the dynamics of culture and community organizing at Saint Andrews Theological Seminary in the Philippines.

Dr. Bautista emphasized the significance of multi-stakeholder partnerships and global citizenship education, stressing the need for access to the premises and substantive agenda of the United Nations. He drew attention to the local and global dimensions of the water crisis, and how partnerships and global citizenship education could help to address it. Additionally, he called for the development of new civics that are centered around the common humanity of the world’s peoples and the sustainability of the planet.

Personal Reflections

Attending this event was very meaningful to me. In my view, economics and political issues are important in our lives. However, after the pandemic, we need to think more about our relationship with Mother Nature. We should consider whether we are asking too much from nature, ignoring the harm and pollution we cause in the name of economic development. Furthermore, we are actually consuming the energy and resources of future generations on Earth; without a proper living environment, there will be no room for the future generation to discuss economic development and health.

Water, an ordinary resource, and a source of energy we encounter in daily life, should not be taken for granted. Even if people can easily swim in the summer, take showers every day, cook food with clean water, and enjoy drinks in various forms, it is essential not to overlook the value of clean water because only 0.5% of water on Earth is useable and available freshwater (World Meteorological Organization, 2021).

Through this meeting, I learned that we as individuals can do a lot to help achieve the United Nations Sustainable Development Goals (SDGs) related to clean water, clean energy, economic growth, sustainable cities, life below water, and partnerships. For SDG 6 (Clean Water and Sanitation), we can practice water conservation by using water-saving appliances, reducing water waste, and avoiding pollution of water sources by properly disposing of chemicals and waste. For SDG 7 (Affordable and Clean Energy), we can use energy-efficient appliances and lighting, as well as conserve energy at home. For SDG 11 (Sustainable Cities and Communities), we can benefit the environment by using public transportation, walking, or cycling to reduce our carbon footprint. For SDG 14 (Life Below Water), we should reduce our plastic consumption and properly dispose of waste to prevent pollution.

Taking the course in “Psychology and the United Nations” in the Department of Clinical Psychology—for which I wrote this report—helped me to further see the integration of these water issues and all the SDGs addressed in this event, with Target 3.4 of the UN Agenda, promoting mental health, since people...
Global Citizenship Education cont.

need to feel good about taking are of themselves in order to care for the planet. Further, the nexus model that Dr. Kuriansky emphasizes in our class - that all SDGS are interconnected, with mental health and wellbeing at the heart of the Agenda – made prefect sense to me as a context for this event.

The speakers all emphasized the importance of partnership. As a student at Teachers College, I will always believe in the power of collaborating with others in the global community to address sustainable development challenges.

References


Event Overview

Title: Global Citizenship Education for Clean Water and Cleaner Energy

Conference: UN 2023 Water Conference Side Event

Date/Time: Mar 23, 1:00 PM – 3:00 PM EDT

Location: In person at the Millennium Hilton New York One Hotel, UN Plaza, New York, NY 10017, USA & virtual summit powered by Zoom

Moderator: Dr. Eunhee Jung, an NGO Representative to the United Nations Economic and Social Council and Department of Global Communications.

Panelists: Dr. Hesham Elnakib, Ambassador Extraordinary of Egypt, Adjunct Professor of American University D.C; Mr. G. Asok Kumar, Asst. Vice Minister of the Ministry of Waterpower, Government of India; Mr. Won-soo Kim, Head of Global Academy for Future Civilization of Kyunghee University and the chair of the International Advisory Board of the Taejae Academy (Future Consensus Institute); Dr. William Gaudelli, Dean of the College of Education at Lehigh University; Dr. Sarantuyaa Zandaryaa, Programme Specialist in the Division of Water Sciences and the Intergovernmental Hydrological Programme (IHP) of UNESCO; Ms. Jayashri Wyatt, Chief, Education Outreach Division at the United Nations Dept. of Global Communications; Dr. Mariel Friberg, Assistant Research Scientist at the University of Maryland and NASA Goddard Space Flight Center; Dr. João Ribeiro-Bidaoui, General Counsel & Director of Global Public Affairs at the non-profit The Ocean Cleanup; Mr. Gi-woong Choi, CEO at Eco Flame, Korea Technology and Engineering Possibility to Contribute to Clean Water and Cleaner Energy; Dr. Jinwoo Lee, Director of Technology Development Division at Dohwa Engineering HQ in Korea; Ms. Aishu Narasimhadevara, Ph.D. Candidate, Chulalongkorn University in Thailand, former Youth Mentor for IVECA; Ambassador Sangjin Kim, Deputy Permanent Representative of the ROK to the United Nations; Dr. Liberato Bautista, the President of CoNGO—Conference of Non-Governmental Organizations in Consultative Relationship with the United Nations
Global Citizenship Education cont.

Reported by Jiao Zheng, a member of the Student Division of the International Association of Applied Psychology pursuing a masters’ degree in the International & Transcultural Studies program at Columbia University Teachers College, and a student in Professor Judy Kuriansky’s class on “Psychology and the United Nations,” which has enriched my life to allow me to explore topics like this one about water, and to integrate it into our studies about mental health, and to be introduced to such high-level intellectuals involved such innovative exiting projects.
Prioritizing And Advancing Equitable Quality Education for Sustainable Development: Forging the Future at The International Day of Education 2023

Ruiyuan (Sophia) Guo

“First the Taliban robbed Afghan women of our right to secondary school, then it was our right to university. Look down this road. No girls graduating high school; no women with college degrees; no freedom to find work; and no skills to bring to any workforce. Nowhere to exist beyond the walls of the home. No independence, no freedom, no voice, no hope. This is the future they want. Look down to the end of the road we are on, and this is the woman you will all see.”

This was the powerful statement of Ms. Shabana Rasikh, founder of the School of Leadership Afghanistan (SOLA), speaking at the International Day of Education 2023, about the education crisis that girls and women in Afghanistan are facing at this time.

The School of Leadership Afghanistan (SOLA), once the only boarding school for Afghan girls in operation around the globe, was forced to evacuate their entire school community to Rwanda since the Taliban took over the country and banned secondary education in August 2021. Access to primary education has been indefinitely suspended for all Afghan girls above the age of 12, and subsequently, university education was similarly banned in December 2022 (“International Day of Education,” 2023). Ever since the political shift to Taliban rule, girls and women in Afghanistan have been deprived of their right to education, an essential right to human dignity, freedom, and well-being.

The event celebrating the International Day of Education 2023 was entitled: Investing in Education: A Path to Peace, Sustainability and Well-Being. It was held on January 24th in the United Nations Trusteeship Council Chamber. The event was convened by the United Nations Educational, Scientific and Cultural Organization (UNESCO) -- a specialized UN agency that facilitates world peace through international collaboration in the arts, culture, science, and education -- and co-organized by the United Nations Group of Friends for Education and Lifelong Learning (“International Day of Education,” n.d.).

The event consisted of two segments. The first segment was in three parts: a High-level Opening on “Transforming Education Summit: Stocktaking And Way Forward”; a spotlight session on “The Right to Education for Afghan Girls And Women”; and an Interactive Panel Discussion focused on “Transformative Education”.

The second segment comprised presentations on “Pathways to Transform Education” and included a “Closing Segment”.

This event was broadcast by the UN Department of Global Communications (DGC) on the UN Web TV (2023) and is available for anyone to access the recording.

Background

The present event builds on the efforts of the UN to boost education for children worldwide, especially since statistics show that children have been set back at least two years during the COVID-19 pandemic lockdowns and school closures.

To respond to the crisis in Education, during the 77th session of the UN General Assembly, the UN held a
Transforming Education Summit (TES) at the New York United Nations Headquarters in 2022. TES is a key enterprise of “Our Common Agenda”, a report of recommendations to push forward strengthening global governance and to respond to current and future challenges launched by UN Secretary-General António Guterres in a policy paper published in September 2021 (“Transforming Education Summit,” n.d.; “Common Agenda,” n.d.). TES was convened to prioritize education at the top of the global political agenda and to transform education to recuperate learning losses during the pandemic and to adapt to the learning-and-professional-skill needs in a fast-changing world through mobilizing action, ambition, solidarity, and solutions (“Transforming Education Summit,” n.d.)

The International Day of Education was proclaimed as the 24th of January on 3 December 2018 by consensus of the United Nations General Assembly, to acknowledge the crucial role of education for peace and development (“Background,” n.d.). The annual observance of the Day is facilitated by UNESCO with major education actors, this year being the UN Group of Friends for Education and Lifelong Learning, as mentioned above.

The Day aligns with Sustainable Developmental Goal 4 (SDG4) of the UN Agenda 2030 for Sustainable Development, which calls for quality education for all - to promote inclusive, equitable quality education, lifelong learning, and collective peace and well-being (“Global Education Cooperation”, n.d.; “United Nations Department”, n.d.). In particular, the International Day of Education emphasizes the role of youth and intends to offer youth a platform to start initiatives and innovations to advance education for all.

UNESCO’s Global Education Monitoring Report and Institute for Statistics also launched the first SDG4 benchmark publication at the conference to report countries’ monitored progress in achieving the goals of SDG4, to sustain and further push forward the political mobilization on transforming education.

The goal of the event was to bring education to the highest level of the political agenda for the global community and to raise the voices of those women who are experiencing repression in Afghanistan.

High-level Opening

“We are here today to celebrate just how far we have come along in this journey, and just how much further we need to go,” exclaimed enthusiastically the UNESCO SDG4 High-Level Steering Committee Youth Representative, Ms. Kenisha Arora, who had the honor to moderate the first part of the program.

Kenisha Arora, SDG4 High-Level Steering Committee Youth Representative
(source: screenshot from the online recording of the International Day of Education 2023).

Ms. Arora introduced the UN Secretary-General H.E. António Guterres, who said via video message that, “Without adequate investment, this potential [for education] will wither...It was shocking that education was given low priority in many governmental policies and international cooperation instruments.” He emphasized that universal access to skills and knowledge is fundamental to achieving SDG4 and urged the global community to continue investing in initiatives launched at The Education Summit (TES), such as giving girls access to education, foundational learning, and digital tools, as a response to the worldwide crisis in education.

Audrey Azoulay, the Director-General of UNESCO, then spoke about the gap between the dream of
Prioritizing and Advancing cont.

education for all compared starkly to the reality that 244 million children are still out of school.

“On this International Day of Education, I would like to send a message for and to the girls and women of Afghanistan,” said Azoulay. “A message of solidarity, of indignation - for they have been brutally deprived of their right to learn, of their right to teach, for far too long now. UNESCO wants to dedicate this day to them.”

Ms. Azoulay’s message perfectly expressed the goal and purpose of the International Day of Education: to prioritize education, uphold the right to education, and invest in education and learners. She recognized the new commitments to transforming education made by over 130 states during the TES and suggested measuring the progress be done in November 2023.

Transforming Education Summit: Stocktaking And Way Forward

Next to speak was the Permanent Representative of the Czech Republic to the UN and Chair of the Group of Friends for Education and Lifelong Learning, H.E. Mr. Jakub Kulhánek. Looking back on the education milestone – the convening of TES – in 2022, he acknowledged five goals addressed by the TES that need to be taken forward: educational inclusion, equitable education, social and human right, peace and dialogue, and sustainable development. Ambassador Kulhánek then led the conversation into envisioning the prospect of future challenges and calling on collective actions to address the current crisis.

In his role as the Chair of the UN Group of Friends for Education and Lifelong Learning, a platform that fosters and advocates the comprehensive implementation of all education-related SDGs and targets, H.E. Kulhánek advocated for continuing the momentum generated in the last 12 months, with a clearer vision on how to advance the realization of education for all.

Particularly, he mentioned four essential steps that need to be taken by UN member states:

1. Start teaching and learning at the very earliest stage of our life and ensure lifelong learning for all;

2. Drive a sustainable digital transition in education;

3. Prioritize the right to education for persons in vulnerable situations and address the inequality in providing education for girls and women; and

4. Invest more equitably and efficiently in education.

He then turned the microphone over to Leonardo Garnier, the UN Secretary-General Special Adviser for the TES initiative, echoing statements made by Ambassador Kulhánek, that education still confronts dramatic crises of equity, inclusion, and quality. He announced the publication of the official report on the TES to reveal the benchmarks and bring the vision to reality. He called for constant monitoring of progress in order to guarantee that education stays at the top of the political agenda of the UN and the member states.

In summarizing the outcomes of the TES, Garnier proposed a series of strategies to focus the global effort on specific targets to achieve SDG4 (“Global Education Cooperation”, n.d.):
Prioritizing and Advancing cont.

There must be both country and regional-level support to deliver the commitment to education; consistent national support and tailored regional approaches will aid in finding solutions for diverse regions.

The roadblock of educational finance must be removed to truly transform education. Countries must create the fiscal space for education, invest more equitably and efficiently in education, and identify and distribute educational resources more proactively and effectively.

Preparation should be in progress now for the “Summit of the Future” in 2024, a summit planned to address old and new challenges and formulate a “Pact for the Future” that helps move forward the SDGs by 2030, including reports on the statistics to back up the progress.

Next, UNESCO Assistant Director-General for Education, Ms. Stefania Giannini, underscored the need for stakeholders to keep pushing on the “grand stride” of prioritizing education on the political agenda, since the first observance of the International Day of Education in 2019. She highlighted the Youth Declaration and the Global Youth Initiative led by the SDG4 Youth Network, a platform that includes young students and education activists in shaping education policies through engaging in the SDG 4 Education 2030 High-level Steering Committee, as exemplary tangible actions are taken to support education (“Investing in Education,” 2023).

In alignment with Garnier’s proposal of strategies, Giannini stressed the five pillars of TES:

Commitments and actions at the country level. The UN member states must pursue SDG4 with a holistic approach, one that involves the whole government and the whole society.

Ensuring that education transformation is a key of the Pact for the Future in the to-be-held Summit of the Future in September 2024.

Sustaining the global movement through engaging key stakeholders, especially young people, and teachers, in various active fora and platforms.

Highlighting the importance of transforming education financing - a fundamental shift in the attitude of governments and finance ministries must be seen, that education financing must be prioritized.

Emphasizing the global TES initiatives that were launched to mobilize international cooperation in education transformation. The conveners of the initiatives are accountable for deriving roadmaps and
monitoring frameworks to ensure effective implementation at the country level.

The next speaker was H.E. Ambassador Alhaji Fanday Turay, Permanent Representative of the Mission of the Republic of Sierra Leone to the United Nations. Ambassador Turay acknowledged the impressive impetus about education that the TES has brought to the UN political agenda and called on all countries to support follow-up to the TES and to set national objectives in sustainable education development for 2025 and 2030.

"Education is not a luxury, but a right," said Ambassador Turay, adding, "More than ever, education is not a cost, but the smartest investment in sustaining future humanity and the planet."

Spotlight: The Right to Education for Afghan Girls And Women

The spotlight panel emphasized the plight of Afghan girls and women since the Taliban take-over of the country, through presentations of three brave women leaders and activists from Afghanistan. They called for the international community’s support for Afghan girls’ and women’s right to education and described what impactful solutions to the current crisis could be taken.

“Our message is clear. The war against women must stop. Let the girls and women of Afghanistan learn,” said the spotlight session moderator Stefania Giannini. She strongly condemned the Taliban’s violation of girls’ and women’s education right, and held the international community responsible for this saddening consequence.

“We are all responsible to ensure that the right to education for Afghan girls and women is restored without delay,” said Ms. Giannini.

H.E. Mr. Yamanaka Osamu, Deputy Permanent Representative of the Permanent Mission of Japan to the United Nations expressed deep mourning and concern over the predicament of Afghan women and girls. He pointed out that the achievement in promoting education in Afghanistan in the past 20 years could vanish in no time if no action is taken.

The first woman from Afghanistan to speak was Shabana Rasikh, who was quoted at the beginning of this article. As the founder and head of SOLA, the only operating boarding school worldwide for Afghan girls, she spoke of the choice every 12-year-old Afghan girl must make: “Today an Afghan girl who wants access to the basic human right of education has two choices:
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If she’s lucky, go overseas – or, go underground. where you become a refugee or effectively become a criminal within Afghanistan. We are talking about a 12-year-old child.”

Rasikh revealed the gloomy prospects for any girl who does not make this choice of going “overseas or underground” and undergoes this risk of becoming “a refugee or a criminal within Afghanistan”:

“The reality is that a woman without access to education is a woman without agency,” she said.

“She is a woman without financial or personal independence. A woman who lives with her hand out, completely reliant on others for her basic needs.” Rasikh further declared, in her emotionally charged statement, that “I spoke not only for myself, but also for thousands of girls and women in Afghanistan, banned from education opportunities with agony and fear… I am the product of the historic bravery of Afghan women. Anger is what I feel. But anger without focus is a wasted emotion. Anger with focus is what put me in this room today.”

Rasikh explained that the recent decision by the Taliban regime of suspending women’s access to universities in Afghanistan has affected over 100,000 female students who previously attended higher education institutions. The achievement over the past two decades for the education of girls and women has been eradicated, which once showed a tenfold increase in the number of enrolled students at all education levels from about one million in 2001 to about ten million in 2018, a 2.5 million increase in the number of girls in primary school. Also, there had been 20 times increase in the number of women in higher education, from 5,000 in 2001 to over 100,000 in 2021, and a doubled literacy rate for women from 17% being able to read and write to almost 30% at all ages (“Three inspiring Afghan,” 2023; “Let girls and women,” 2023). But these advances have reversed under Taliban rule.

Now, 80% of school-aged Afghan girls and women are forced to drop out of school, and 30% of Afghan girls have never entered any educational institution.

Rasikh entreated the global community to stand with the girls and women of Afghanistan and become allies for them against extremism. “Extremism would not stay contained within the border of Afghanistan. To stand with the women and girls of Afghanistan is to defend the peace of neighboring countries and the peace of the whole world,” explained Rasikh.

“Each Afghan girl in exile becomes an educated Afghan
woman ready to return home to Afghanistan, ready to take on the challenge to rebuild our beautiful country,” she said.

Rasikh urged international allies to look at these educated women as the drivers to a more stable, equal, and peaceful society.

Her concluding statement led to applause that lasted for some minutes from the entire assemblage, as she asked, “What is one girl worth? She is worth everything. And she can do anything.”

Next to speak was Ms. Aydin Sahba, an Afghan student at SOLA and a young activist. She urged individuals and groups, national governments, and international institutions to listen to the women of Afghanistan.

“It’s been exactly 492 days since the school has closed for girls, and in ultra-disappointment and frustration I must say that nothing has been done since then,” she said.

“Unfortunately, the international community, world leaders, and the world collectively, failed us. And by us, I mean the future,” she said. “The future that we all share together…I want the world to fight for my sisters. Because my sisters – all of them, back home – are worth the fight. […] As the current crisis continues to affect the lives of millions of young Afghan girls, we need to be fully aware of the roots and the long-term impacts of such a crisis and act accordingly. Only opening the doors to schools and universities is not the ultimate solution anymore.”

Sahba asked the world to turn their attention to the women of Afghanistan protesting on the street and bravely fighting against the atrocious regime in the country. “Listen to the women of Afghanistan. They are present,” she said, “There are women in Afghanistan protesting every day on the streets throughout the country and demanding that the ban on their right to education be lifted. We just need to hear them.”

Sahba also warned about the quality of education under the Taliban regime, stating that the Taliban curriculum would only produce brainwashed tyrannic ideology and that quality education is urgently needed for the young girls in Afghanistan.

Next was Ms. Pashtana Dorani, Executive Director of Learn Afghanistan, the country’s first-ever digital learning network, and an activist and writer forced into exile by danger from the Taliban takeover in 2021. She is now a visiting fellow at the Wellesley Centers for Women, the largest academic research
Prioritizing and Advancing cont.

and action institute in the United States concentrated on women and gender and driven by social change, where she continues to provide online education for girls and women in Afghanistan.

Dorani spoke about the education crisis in Afghanistan. “Education is not a project. It has been treated like one in Afghanistan for the past two decades. [...] it's time for the world leaders to understand that education in Afghanistan is not a 6-month project, nor a 2-year project, not a back project, not a copy project - it's a life-long term commitment to Afghanistan, to the tools' development, to the education, to the teachers, to the training of teachers.”

She emphasized four essential solutions that all educational leaders should focus on:

1) Provide Afghan girls with accessible reading materials in their native language, auditory learning lessons, and offline apps that a child can learn from;

2) Support those who are working at the front line for girls' and women's education, either online in Rwanda or in-person in Afghanistan, and pay more attention to people who actually are presenting solutions instead of the Taliban government;

3) World leaders need to create a place where not only access to education but also access to opportunities besides education are possible. These include financial independence, emotional independence, the right to move or travel, the freedom of speech, and more; and,

4) Funding needs to be decolonized, de-monopolized, and made more accessible to the local community.

Advocating for the right to education of Afghan girls and women, Dorani threw a question to the world leaders and the global community at the conclusion of her presentation, asking, “We have taken the initiative and created the space, but are you willing to stand with us and support us?” The question shall be answered by the actions of all international initiatives and national governments.

Interactive Panel discussion: Transformative education

The next section of the program was an interactive discussion on transforming education. It focused on the TES launch of five Global Initiatives to help countries improve their education systems, including: preparing learners for a greener future, offering digital solutions to learning, promoting gender equality, ensuring the continuity of inclusive education for learners under crises, and empowering youth to take on effective leadership roles.

Dr. Maria Ivanova, Director of the School of Public Policy and Urban Affairs at Northeastern University in the USA, moderated the interactive discussion about how education stakeholders turn their commitments into actions taking into account these initiatives.

Panelist Helen Grant, UK Special Envoy on Girls’ Education, proposed important connections between education and other major issues such as poverty and climate change. Grant stated that the child of a mother who can read is 50% more likely to live beyond the age of 5, twice more likely to go to school, and 50% more likely to be immunized. Additionally, girls who are educated are more capable of choosing if, when, and how many children they would have.
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She suggested that girls who are educated are able to contribute much more to decision-making and leadership on climate resilience, adaptation, and mitigation. Income and the economy would also benefit from investment in girls’ education. Grant strongly endorsed a financial refocus toward countries where large disparities in the education level of the population are present. Innovative financial solutions shall be sought, such as international financing facilities for education and education outcomes funds besides governmental funding.

The next panelist, the Permanent Representative of the Republic of Indonesia to the UN, H.E. Armanatha Christiawan Nasir, reflected on the impact of COVID-19 on education and called for securing education for citizens. He spoke about the digital transformation of education currently in the Republic of Indonesia, mentioning adjustments and preparation to expedite this transformation, such as the Palapa Ring project completed just before the pandemic, which significantly improved mobile connectivity and provided 9 out of 12 regions in the country with 4G internet access (Medina, 2020). Digital connectivity went hand-in-hand with national guidelines on the transition to online learning, aiming at offering access to education resources to even the most remote learners.

To move from vision into action, H.E. Nasir provided four pieces of advice for global nations:

Strong political will is necessitated to view digital transformation as a right rather than as a privilege, such as to ensure that it is inclusive of all learners.

Public and private partnerships need to be advanced to provide finance for education. Governmental action alone will not be sufficient without public and private cooperation.

The curriculum system should also be transformed to encourage independent thinking and problem-solving alongside digital learning.

Digital transformation should not be only a temporary solution to COVID-19’s disruption but should stay as a trend for the future. By the end of 2022, Indonesia has distributed over 1 million laptops to over 70,000 schools for this end.

Next, the Director of Programme Group at UNICEF, Mr. Sanjay Wijesekera, presented a list of clear actions to transform education. He promoted investment in foundational skills such as reading, writing, and basic mathematical calculations for children. The role of school, in his view, should be more than a place to offer taught lessons: “School is central to the holistic wellbeing of a child, and it should serve multiple functions such as providing services and resources on health, water, sanitation, and safety.” As the representative of UNICEF, Wijesekera asserted that UNICEF is monitoring country-level actions to hold all accountable and to identify best practices to be scaled up and replicated.

Adding the voice of youth to the conversation, Ms. Ashley Jun, a high school freshman and the Eco-Ambassador of Mission 4.7, described her organization as set out to achieve the principles of SDG 4.7 including education for sustainable development, global citizenship education, environmental education, and climate education. Jun called on young people to help fight the climate crisis through their personal choices. Also, she encouraged young people to educate themselves on environmental literacy to be proactive about saving the planet and to get involved. Explaining how the SDGs are interdependent and interconnected -- for example, that SDG4 about quality education is closely tied to SDG13, to “take urgent action to combat climate change and its impacts” -- she advocated for both quality education and climate action.

The last panelist of the interactive discussion on transforming education was Ms. Yasmine Sherif, the Executive Director of Education Cannot Wait, the UN global fund for education in emergencies and enduring crises. Having begun her career in Geneva and Afghanistan in 1989, Sherif described that she became a passionate advocate for education rights. Through
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the organization she is currently directing, Sherif’s goal is to raise funds to mobilize education resources in times of crises, for example, to raise funds for girls and women in Afghanistan, for children across the Middle East and across the Sahara, and for refugees in South America, as well as many more in need.

Sherif insisted on three important pillars to uphold education right: Quality education, priority to gender, and immediacy of action.

No one should be subjected to violence in one’s pursuit of education or on one’s way to school, she said, thus, learners should receive protection. “We cannot wait till the crisis is over to act. It has to happen in the here and now,” she said.

Sherif called on all to defy the Taliban’s ban on girls’ and women’s education and to take on the responsibility to stand up and challenge the regime with the brave women leaders in Afghanistan: “We cannot abandon the women and girls in Afghanistan and we will defy that ban,” said Sherif, “The international community has the responsibility to stand up and challenge the Taliban government and continue the work in Afghanistan.”

Segment 2: Pathways to transform education

The second panel, moderated by Randi Weingarten, President of the American Federation of Teachers -- the second largest teachers’ union in the U.S. after The National Education Association (NEA) --- discussed the empowerment of teachers and the roles that the UN Development System can play at the local and regional levels to advance education transformation. The panel addressed the importance of financing transforming education and expanding the source of investment – to facilitate the public-private partnerships in increasing the fiscal space in education and prioritizing education financing in public policies.

Charles North, the Deputy CEO of Global Partnership for Education, the largest global fund dedicated to transforming education in lower-income countries, admonished international stakeholders for the declining education investment and beseeched GPE partner countries to put education financing at the forefront (“Global Partnership for”, n.d.). North called for action on debt relief to protect education spending, for 30 GPE partner countries have cut the equivalence of half the education budgets or more on debt repayment. He said that a more efficient spending profile must be constructed to spend money on central needs, such as training teachers. North also implored policymakers to shift their mindset from considering education to be solely relevant to SDG4 to understanding that the education crisis jeopardizes a nation’s ability to reach all SDGs.

H.E. Mr. Enkhbold Vorshilov, Permanent Representative of Mongolia to the United Nations, expressed support for Mongolia’s education initiatives and appealed for UN Member States to stand by their commitment to prioritize education, offer digital solutions, and advance gender equality.

The UN Resident Coordinator in Panama, Ms. Ana Graça, participated virtually and entreated support from the Ministry of Finance of all UN Member States to expand fiscal space, encouraging nation-states to seek out public-private partnerships additional to state-owned resources.

Mr. Manos Antoninis, Director of UNESCO Global Education Monitoring Report Team, stressed the significance of replaying the progress and benchmarks of education transformation to ground policies. Education investment is indispensable for any society that strives for human well-being and equity and for every state that desires a healthy, dynamic economy.

Closing segment

During the Closing Segment of the International Day of Education 2023, Ms. Kenisha Arora reprised her role as moderator and addressed an open letter on behalf of youth leaders to the global leaders, urging them to ensure equal engagement opportunities for
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youth in the decision-making process and shaping a transforming education climate system.

H.E. Ambassador Csaba Kőrösi, President of the 77th United Nations General Assembly, accepted the open letter and underscored the critical role of youth in securing a lasting impact on education transformation. He referred to the Youth Declaration at the Transforming Education Summit held in New York in 2022, and to the launch of the Global Youth Initiative, the first multi-stakeholder, international initiative spearheading youth engagement and leadership in education policymaking, asking for increased support to teachers and policymakers in crafting truly transformative, revolutionary education (“Launch of the,” n.d.).

H.E. Ambassador Tijjani Muhammad Bande, Permanent Representative of Nigeria to the United Nations, who spearheaded the International Day of Education at its outset in 2019 co-organized with the Permanent Missions of Ireland, Qatar, and Singapore, emphasized the necessity for global-to-local, public-to-private, and between-nation partnerships to tackle the ongoing challenges in education collectively.

The International Day of Education ended with a statement by Ms. Arora, who said,

“When education is transformed and our society is educated, society itself is transformed. Financial literacy through transformation becomes financial freedom and economic development. Digital literacy becomes digital transformation. Climate literacy becomes climate action. A book becomes a dream, a pen becomes a policy and a microscope becomes the cure for cancer. Education is the foundation of that change, our change.”

Personal Reflections

I chose to report on this event because I am the beneficiary of quality education. I grew up in China and came to the U.S. to study as an international student ever since 2015 and shared with millions of others the best educational resources in the world. Education has personal importance to me not only because it is the most important investment of my family for me, but also because I expanded the boundary of my life and life opportunities with the education I have received. My parents’ generation believed that education could transform a person’s life, a view with which I agree, and take a step further, in that I have experienced that education opens a person’s sight toward more choices and bestows upon that person the courage and wisdom to make the choices they want. Education is a basic human right because only with education can one understand their rights and protect themselves with laws and structure. Furthermore, education enables one to fight against an unjustified system and institution with the demanding intellectual and mental power when one is being oppressed. Education, in my view, is the gateway to living one’s full potential.

Event Overview

TITLE: International Day of Education: To invest in people, prioritize education

CONFERENCE: Cat IV – International Congress

Date/Time: 24 January 2023

Location: United Nations Headquarters, New York City, Trusteeship Council Chamber

Moderators: Ms. Kenisha Arora (SDG4 High-Level Steering Committee Youth Representative); Stefania Giannini, Assistant Director-General for Education of UNESCO; Dr. Maria Ivanova, Director of the School of Public Policy and Urban Affairs, Northeastern University; and Randi Weingarten, President, American Federation of Teachers)

Panelists: H.E. António Guterres, Secretary-General of the United Nations; Audrey Azoulay, Director-General of UNESCO; H.E. Mr Jakub Kulhánek, Permanent Representative of the Czech Republic to the UN, and Chair of the Group of Friends for Education and
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Lifelong Learning; Leonardo Garnier, UNSG Special Adviser for the Transforming Education Summit; Stefania Giannini, Assistant Director-General for Education of UNESCO; H.E. Alhaji Fandy Turay, Permanent Representative of the Republic of Sierra Leone to the United Nations, and Global Champion for Education Transformation Representative; H.E. Yamanaka Osamu, Deputy Permanent Representative, Permanent Mission of Japan to the United Nations; Ms. Shabana Rasikh, Founder of School of Leadership Afghanistan; Ms. Aydin Sahba, student at the School of Leadership Afghanistan and Activist; Ms.Pashtana Dorani, Executive Director of Learn Afghanistan; Ms. Helen Grant, UK Special Envoy on Girls’ Education; H.E. Armanatha Christiawan Nasir, Permanent Representative of the Republic of Indonesia to the United Nations: Mr. Sanjay Wijesekera Director, Programme Division, UNICEF; Ms. Ashley Jun, Mission 4.7 Eco-Ambassador: Ms. Yasmine Sherif, Director Education Cannot Wait; Charles North, Deputy CEO, Global Partnership for Education: H.E. Enkhbold Vorshilov, Permanent Representative of Mongolia to the United Nations: Ms. Ana Graça, UN Resident Coordinator in Panama, Manos Antoninis, Director, Global Education Monitoring Report Team, UNESCO: H.E. Csaba Kőrösi, President of 77th United Nations General Assembly: H.E. Tijjani Muhammad Bande, Permanent Representative of Nigeria to the United Nations.

References


Department of Global Communications -DGC, United Nations. (2023, January 24). *International Day of Education 2023: To Invest in People, Prioritize Education* [Video]. UN Web TV. https://media.un.org/en/asset/k1i/k1i87z8km


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Reported by Ruiyuan (Sophia) Guo, a member of the Student and Early Career Psychologists Division of the International Association of Applied Psychology pursuing a master’s degree in the Department of Clinical and Counseling Psychology, Columbia University Teachers College, and a student in Professor Judy Kuriansky’s class on “Psychology and the United Nations.” In addition to my scholastic work, I have three years of research experience working in the field of social and clinical psychology. I am interested in furthering research on mood disorders such as depression and anxiety, including the pathogenic mechanisms and factors crucial for treatments in late adolescents, emerging adults, and adults (age 17-65), specifically involving marginalized populations. I hope to take a multicultural perspective and approach in my work forward and contribute to both the local and cross-cultural communities of the globe.

Edited by Dr. Judy Kuriansky, Professor of Education and Psychology at Columbia University Teachers College, teaching the class on “Psychology and the United Nations”; NGO representative of the International Association of Applied Psychology to the United Nations; and Policy Advisor to Ambassador Sidique Wai of the Embassy of Sierra Leone to the United States. Her advocacy about mental health and well-being at the UN in partnership with governments led to its successful inclusion in the UN 2030 Agenda for Sustainable Development, the Political Declaration for Universal Health Coverage and many other agreements. She has authored and co-edited innumerable books on relationship and on international issues, including about the peace in the Middle East, disaster recovery, sexuality education, and Women Around the World and published hundreds of professional articles in world issues and the global goals.
“Young Women Smashing Power Structures by Feminist Consultations”:
Mengqi Du and Dr. Judy Kuriansky

“Can young women change the world?” This was a question I posed to the moderator, Ms Suchiu Gaur, at an event entitled “Who Leads? Young Women Smashing Power Structures by Feminist Consultations” during the United Nations Commission on the Status of Women. Ms. Gaur is the Director of Global Engagement and Impact of World YWCA.

The answer should be a resounding “Yes”, Ms. Gaur answered. Then, I followed up with another question, “If yes, then how?”

The answer to my question was in the presentations in the ensuing panel at the event organized by the World YWCA, held on Wednesday, March 8, 2023, which was International Women’s Day. The event took place in-person (not virtually) in a conference room of the Church Center for the United Nations (CCUN) in New York City, which is an office building over a church, across the street from the UN headquarters. The event was from 8:30 AM to 10:00 AM (EST).

The main objective of the event was to create a platform for young women to engage in feminist consultations and discuss the challenges they face in leadership positions.

The event was part of the two-week long conferences of the Commission on the Status of Women NGO Forum, held annually to promote worldwide conversation in line with the Sustainable Development Goal 5 (SDG 5) of the United Nations 2030 Agenda for Sustainable Development.

SDG 5, adopted by the United Nations in 2015, calls for gender equality and the empowerment of women and girls (United Nations, 2023). The goal aims to eliminate all forms of discrimination against women and girls, promote equal access to education and healthcare, ensure women’s full participation in the economy, increase their representation in leadership positions, and eliminate all forms of violence against them. Achieving these targets is essential for promoting sustainable development, reducing poverty, and creating a world where women and girls have equal rights, opportunities, and access to resources to reach their full potential (United Nations, 2023).

Gender equality is not only a fundamental human right but also a necessary foundation for a peaceful, prosperous, and sustainable world, making the empowerment of women and girls an economic and social imperative (United Nations, 2023).

Consistent with this, the event focused on the importance of including young women and gender-diverse individuals in policy-making through a feminist consultation lens and methodology (World YWCA, 2022). This methodology allows for the uncovering hidden, forgotten, and ignored aspects, bringing the
Young Women Smashing cont.

voices of those who matter to policy but who are usually not heard. Since its launch in 2018, this approach has engaged with thousands of people, especially young women, with the intention of promoting solidarity and advocacy for issues such as equal rights and access (World YWCA, 2022).

The event was specifically designed to foster engagement on this issue and serve as a platform for raising awareness about these important issues.

Background

According to a report by UN Women, women and girls worldwide face significant barriers to accessing decision-making positions and platforms (United Nations, 2015). Women’s representation in parliaments globally stands at only 25%, with only 22 countries having a woman as a head of state or government. Furthermore, women’s representation in leadership positions in the private sector remains low, with only 18.5% of CEO positions in the world’s largest companies held by women. This lack of representation and participation has far-reaching consequences, including unequal distribution of resources, lack of access to education and healthcare, and inadequate responses to issues such as gender-based violence. By promoting feminist consultation methodology and engaging with young women, the event aimed to tackle these issues and create more equitable opportunities for all genders.

The topic of this event also aligns with target 3.4 in the UN 2030 Agenda, which calls for the promotion of mental health and well-being, since leadership requires qualities of confidence, self-esteem and self-agency (United Nations, 2015).

Context

As the world continues to grapple with issues such as gender inequality, poverty, and discrimination, the importance of inclusive policy-making processes that support women and girls in leadership positions cannot be overstated. Women, especially those from marginalized communities, are often excluded from decision-making processes that directly impact their lives. But, what if there was a way to actively engage with these women and center their voices in policy-making?

This is where “feminist consultation methodology” comes into play, as a powerful tool for dismantling power structures and creating more equitable societies. This approach has gained increasing attention from constituencies at the United Nations, who recognize the need for diverse perspectives and inclusivity of voices, especially of women and girls, among other marginalized groups, in creating sustainable change. This report describes the event and explores the benefits and challenges of feminist consultation methodology, and its potential to transform the way we approach policy-making.

About the World YWCA

The main organizer of this event was World YWCA, a grassroots-driven, global movement rooted in the leadership of women, young women, and girls (World YWCA, 2022). This non-profit organization operates in more than 100 countries, and is committed to promoting the rights, leadership, and empowerment of women, young women, and girls, with a focus on investing in and building young women’s leadership; amplifying young women’s voices; creating safe spaces for young women to thrive; advocating for gender responsive policies and practices that underscore women’s rights as human rights; and building an intergenerational network of women leaders, in a human-rights based, feminist, and intersectional leadership that is inclusive, grass-roots-driven and grounded in local communities, as outlined on their website (World YWCA, 2022). The global headquarters is in Geneva, Switzerland, while its administrative center is located in Washington, DC in the USA.

The World YMCA initiative, #Goal2035, is “By 2035, 100 million young women and girls will transform power structures to create justice, gender equality and a world without violence and war; leading a sustainable YWCA movement, inclusive of all women.”
Young Women Smashing cont.

Definition of terms

The “feminist methodology” (FM) is an approach to research grounded in feminist theory and principles, which seeks to center the experiences and perspectives of historically marginalized groups, particularly women, in decision-making processes (Reinharz, 1992; Cancian, 1992). The approach aims to create meaningful change by challenging the status quo and disrupting traditional methods that have often been biased towards dominant groups and have not captured the experiences and needs of marginalized groups. The key principles include intersectionality, participatory research, power-sharing, and ethical considerations (Reinharz, 1992; Cancian, 1992).

The concept of “intersectionality” acknowledges that individuals face various types of oppression, and that their experiences are influenced by their unique combination of identities and social positions (Harhois, 2013).

“Participatory research” engages those most affected by the research as active participants in the project, while “power-sharing” ensures decision-making power is shared among all participants (Harhois, 2013). Ethical considerations prioritize the safety and well-being of all participants (Harhois, 2013).

The feminist consultation methodology

The topic of the event was intentionally provocative in its use of words, to “smash the patriarchy power structure by feminist consultation methodology” implying the need for drastic change.

To accomplish this, World YWCA invented the feminist consultation methodology (FCM) as “a unique methodology” in the spirit of co-creation and suitable for action research. It was designed by young women for young women through consultancy. Rooted in participatory approaches, and guided by concepts of intersectionality, and the need for safe spaces and intergenerational conversations, the FCM can be used by anybody who works with young people and is interested in investing in them for a systematic and process-driven change through consultation” (World YWCA, 2022).

While feminist methodology (FM) has been around since at least the year 1992, it has not been widely known or utilized. However, with the emergence of the FCM and efforts of organizations such as the World YWCA, feminist methodology has been put into practice and is gaining more recognition. The feminist consultation methodology (FCM) is a prime example of how FM can be applied to action research and how it can be tailored to specific groups, in this case, young women. As more organizations adopt feminist methodology and utilize it in their research, it has the potential to become more mainstream and widely recognized as a powerful tool for creating meaningful change.

The event

The moderator of the event was Ms. Suchi Gaur, Director of Global Engagement and Impact of World YWCA since 2018, who has over 10 years of experience working in non-profit, startup, parliamentary, and research sectors on the intersection of gender, public health, and communication technology. In her role, she oversees the daily engagement, programmatic activities, mission impact, and communications efforts at the World YWCA, with the overarching mantel of advocating for rights-based policies for women and youth engagement. Notably, she received a prestigious Fulbright scholarship for her doctoral work in participatory community communications.

Ms. Gaur opened the meeting by discussing the importance of advocacy in achieving the YWCA’s goal of empowering 100 million women by the year 2035. She relayed her personal experiences in the women’s rights movement, which sometimes failed to authentically listen to the narratives and stories of the communities it was trying to help. She emphasized the YWCA’s commitment to sharing reliable and accurate information and advocating for the advancement of women who have been systemically excluded, using
Young Women Smashing cont.

credible data obtained through valid research methods and sources. She also highlighted the YWCA’s focus on centering attention on young women and providing resources to empower them. She acknowledged the devastating effects of complex, repressive reproductive policies, such as limited access to contraception and abortion services, and the resulting impact on women’s health and autonomy, as well as the economic, geopolitical, and socio-economic instability experienced by women and girls who are disproportionately affected by such policies.

She then explained the “feminist consultation methodology”, which differs from traditional research methodologies that are often rooted in colonial approaches. The methodology considers power dynamics, the tone of language, and intergenerational knowledge-sharing, and engages research participants as co-researchers and communities in data collection and analysis.

Ms. Gaur then expressed gratitude to the panelists and colleagues who have helped with the YWCA’s work and wished everyone a Happy International Women’s Day.

The first speaker in the panel was Ms. Thabani Sibanda, a representative of World YWCA since 2018, whose role involves strategic partnerships, grants management, resource mobilization and building donors and revenue to enhance the sustainability of the movements and the World Office. She specializes in securing funding for topic areas like HIV and AIDS, sexual and reproductive health and rights (SRHR), and maternal, newborn, and child health (MNCH), which all align with, as she said, her “vision to promote gender equality and build a world where young women have better access to information and reproductive health.”

Sibanda highlighted the organization’s history of advocating for women’s rights since 1855. She acknowledged that while progress has been made, global economic systems and patriarchal structures continue to impede women and girls worldwide. Thabani stressed that the World YWCA aims to empower women and girls by nurturing their leadership skills and collective strength, so that they can work towards achieving justice, peace, human dignity, freedom, and environmental sustainability. They also aim to create opportunities for women from different countries and cultures to connect, mobilize, inspire,
Young Women Smashing cont.

and create change in their communities.

YWCA has practiced the “feminist consultation methodology” (FCM) to engage young women around the world in decision-making processes, she explained. Significantly, since the FCM was created by young women themselves, it offers an alternative to traditional, colonial methods of evidence-gathering by centering the experiences and perspectives of historically marginalized groups, particularly women. By framing research in the context of transformative justice, the FCM empowers young women to shape the agenda and advocate for meaningful change in their communities and beyond.

Shibanda then invited the audience to consider three questions related to FCM:

• Who benefits from the research?
• Who sets the research agenda?
• Who uses research results?

These questions, she said, are important because they help us to understand whose voices are being prioritized in research, and whether the research is being used to reinforce existing power structures or to challenge them. Raising these questions, she said, encourages people to think critically about research and to consider how it can be used to promote social justice and equity.

What are the answers to these questions? It is noted that the speaker admit she purposefully did not give the answers during this conference as she meant to leave these questions open for the attendees to think about critically.

The Young Women-Led Feminist Consultation Methodology Guide, available as a textbook or training guide, was created and published by World YWCA in 2020. This FCM guide is currently in use by the consulting teams of World YWCA in nine countries in Asia and Pacific, including Nepal, Bangladesh, Myanmar, Sri Lanka, India, Thailand, Papua New Guinea, Solomon Islands, and Samoa (World YWCA, 2020). This FCM textbook was written by the young female members in World YMCA and is intended for use – for free – by anyone working with young people who is interested in investing in youth for a systematic and process-driven change (World YWCA, 2020).

Given the current interest in and importance of data collection and data disaggregation in human rights and UN circles, Shibanda explained that the feminist consultation methodology seeks to reverse the way data is collected, so that it is representative of actual people and communities, and empowers women and girls to take control of their stories and experiences.

The second speaker was Ms. Jeevika Shiv, a lawyer and social worker in India. She is a member of the Women in Criminal Law Association (WCLA) and a National Youth Gender Activist from India for UN Women, which is the United Nations entity dedicated to gender equality and the empowerment of women. Shiv does advocacy about gender equality with marginalized communities including tribal people and the rural poor, with a focus on feminist leadership, legal systems, livelihoods, governance, social security, and justice.

Ms. Shiv began by thanking the audience for the opportunity to speak on behalf of the feminist movement and commended the organizers for bringing together young feminists from around the world to highlight the importance of localizing feminist agendas. She also acknowledged the significance of having a panel from the Global South, particularly...
Young Women Smashing cont.

in India where she is from, as it illustrates a shift in power dynamics and highlights the importance of engaging with marginalized communities in the region.

Ms. Shiv shared her personal experience working with rural communities in Gujarat, a state along the western coast of India, during which time she realized the lack of young feminist spaces for women, girls, and gender-diverse people. She reflected on her experience attending an international conference at United Nations in 2019 and feeling alienated and excluded from the discussions.

In describing how she felt marginalized, she said, “I grew up in India, in an environment where you see gender disparity around you everywhere in the way women are treated, but I was also brought up in a supportive, inter-caste and interregional environment at home that was very gender-equal. So I believed that if my family can create a nurturing environment, I should be able to do the same.”

As a result of her experience of being marginalized, she began to question the importance of including diverse perspectives at the table, recognizing the unique ways in which individuals' gender identities intersect with their lived experiences and shape their understanding of the world. She emphasized the importance of not only having representation by women at the table but also ensuring that marginalized voices were heard and their experiences were taken into account. Feminist consultation methodologies, she said, offers a solution. This approach was developed over the course of three years of working with young women and girls, to create more inclusive and resourced spaces for young feminist movement building.

“Who is accountable and to whom?” she asked. In answering her own question, she emphasized the need for governments to be held accountable and for young feminists to have a systematic way of negotiating with them.

At the end of her speech, she said “I believe that the power of collectives can bring about change, by building solidarity and supporting each other.”

The third speaker was Ms. June Oscar, an Indigenous Australian woman of Bunuba descent from Australia who serves as the Director at Australian Human Rights Commission, an independent body that investigates discrimination and human rights violations (Australian Human Rights Commission, 2017). Ms. Oscar is renowned in Australia for her activism in promoting Indigenous rights and improving the lives of Aboriginal people in remote communities, particularly in Fitzroy Crossing, which is a small town located in the remote Kimberley region of Western Australia (Australian Human Rights Commission, 2017). Respect for her work is reflected in her receiving the Order of Australia award in 203 for exceptional service in health and social welfare programs in Western Australia’s Indigenous community. Since 2017, June has held the position of Aboriginal and Torres Strait Islander Social Justice Commissioner, with one of her notable efforts being a campaign against Fetal Alcohol Spectrum Disorder.. In October 2019, she was appointed to the Senior Advisory Group involved in co-designing the Indigenous voice to the government.

In keeping with an indigenous approach to appreciation for the environment, Ms. Oscar started her speech by acknowledging World YWCA and the women and girls who have cared for the Earth that they gathered on. She wished everyone a happy International Women’s Day and acknowledged the women who have gone before them, and those who could not be present. She shared that although her indigenous language, Kuku Yal, does not utilize the feminine methodology being discussed, it shares many similarities. She shared her background, as the first Aboriginal woman to be Australia’s Aboriginal and Torres Strait Islander Social Justice Commissioner in its 25-year history, and not coming from a government or legal background. She elaborated her life and experiences working in social justice and
advocacy, in community-controlled organizations, and her knowledge of the culture and traditions of the Kimberley region of Western Australia, where she was raised by her mother and grandmother.

She highlighted the extraordinary capacity of Indigenous women, who “knit the fabric of society together and carry essential knowledge for existence and protect their families, communities, and culture”.

She further pointed out that the history of colonization, led by white settlers, excluded Indigenous women from the overarching dispute about the way Australia functions, saying, “Gender inequality, which disproportionately impacts Black, Brown, Indigenous women the world-over, takes root because structures, that are not of our own making, have forced us to the margins, and shut us out from forming the policies and legislation that impacts our lives.”

Indigenous women face immense challenges and hardships, she said, but they are also resilient and strong. She emphasized that women embody many solutions to address global challenges of inequalities, caring structures and frameworks, and environmental destruction.

The launch of the “women’s voices” initiative by her team in 2017, she said, aimed to elevate the voices of Indigenous women and girls from the ground to the corridors of decision-making within the Australian government. The purpose of her term as Social Justice Commissioner, she explained, was to counteract the history of exclusion and to ensure that Indigenous women and girls know that their voices, lives, knowledge, and lived experiences matter.

The final speaker was Ms. Naw Khine Thazin Ni Win, also referred to as “Dah”, who is the Mentorship and FISA Coordinator at Wedu Foundation, a social enterprise based on Bangkok, Thailand, whose mission is to provide “high potential young women” from Asian communities with access to mentorship and funding for education and becoming leaders. Dah has three years of experience managing leadership programs for young women from diverse backgrounds in Myanmar, along with lived experience as a refugee, and a dedication to contributing to her community. She joined Wedu to embark on a rewarding journey of identifying young talent and supporting them to realize their full potential.

Dah was born and raised in Myanmar. In 2021, Myanmar was in a state of political upheaval following a military coup in February. Dah was in Myanmar at the time and witnessed the unrest firsthand. She was in the country to continue her work with Wedu Foundation. Despite the dangerous situation, Dah remained committed to her work and continued to educational support the young women she was mentoring. Her dedication to contributing to her community and empowering young women in the face of adversity is a testament to her strength and resilience.

During her speech, Dah explained that young women often face financial hurdles when it comes to participating in decision-making spaces and advocacy platforms. These costs can include travel expenses, accommodations, and other related fees. As a result, many young women are unable to attend important events and discussions, which limits their ability to shape policies and influence outcomes. Dah underscored the importance of addressing these structural and institutional barriers, as well as the need for trauma-informed programming and support for young women facing trauma. She also stressed the importance of coalition-building as a way to amplify the voices of young women and effect change at a systemic level.

Dah urged young women to “make use of the opportunities given to them to voice out their issues and make their voices count for themselves and other young women who could not access these opportunities,” emphasizing the importance of taking advantage of available platforms to advocate for gender equality and amplify underrepresented voices. Uncovering hidden, forgotten, and ignored issues is important to bring the voices of those who matter into policy. Over the previous few months, Dah...
Young Women Smashing cont.

and her team had focused on bringing young girls into policy-making, using a process of consultation with communities in Myanmar. Through this process, they engaged with thousands of people who were interested in the methodology, and they were able to build solidarity and advocate for issues such as equal rights and access in Myanmar.

At the end of Dah’s speech, she highlighted the importance of empowering young women and girls to advocate for gender equality and amplify underrepresented voices. The feminist consultation methodology, as demonstrated by Dah’s team, provided a valuable tool for uncovering hidden issues and promoting solidarity in her home country Myanmar. While the methodology had its challenges, Dah believed that co-creation could be a guiding principle for policy-making, bringing together diverse groups to advocate for change. The discussion during the event further emphasized the need for continued efforts towards inclusion and representation in policy-making, particularly for marginalized voices.

After the speakers’ closing remarks, the moderator, Ms. Suchi Gaur, facilitated a brief Q&A session, during which attendees had the opportunity to ask questions and share their thoughts on the presentations and the importance of feminist consultation methodology in promoting gender equity.

Following the Q&A, the event concluded with the speakers extending their warm wishes to women around the world for a happy International Women’s Day. The representatives from World YWCA reiterated their commitment to promoting feminist consultation methodology by providing training opportunities and distributing textbooks to NGOs and individuals interested in incorporating feminist principles into their work.

The moderator, Ms. Suchi Gaur, then invited all the speakers to take a group photo, creating a joyful moment for everyone. Attendees were also given the opportunity to meet and take photos with the speakers, fostering a sense of community and solidarity among those in attendance.

To further support the attendees’ learning, each person was given a free copy of the World YWCA’s Young Women-Led Consultation Methodology Guide. This guide provides practical strategies for incorporating feminist principles into leadership and consultation, and serves as a valuable resource for those interested in promoting gender equity and empowering women in their communities and industries.

Overall, the event provided a rich and empowering experience for everyone involved. The Q&A session allowed for thoughtful discussion and engagement among the speakers and attendees, and the event concluded with a renewed sense of commitment to feminist principles and promoting gender equality.

Conclusion

The event on “Who Leads? Young Women Smashing Power Structures by Feminist Consultations” organized by the World YWCA provided a powerful and insightful platform for a diverse group of speakers and attendees to discuss the challenges and opportunities facing women leaders. The speakers shared their personal experiences and perspectives on critical issues related to feminism, including gender inequality, intersectionality, Indigenous rights, and youth empowerment, all of which were analyzed through the lenses of feminist methodology (FM) and feminist consultation methodology (FCM), which were central to the discussions. The event demonstrated the importance of utilizing these methodologies in promoting women’s empowerment and leadership, and highlighted the need for more feminist-led spaces and initiatives to create meaningful change.

Throughout the conference, the speakers emphasized the crucial need to amplify the voices and perspectives of marginalized groups, particularly women from Australia, Myanmar, India, and beyond, who face similar challenges globally. They also stressed the urgency of cultivating more inclusive and diverse leadership and providing support for women in
Young Women Smashing cont.

leadership positions through mentorship, education, and policy reform.

As the event concluded, all the speakers extended their wishes for a happy International Women’s Day (as this was March 8) to all women, while the representatives from World YWCA expressed its commitment to providing textbooks and training opportunities for NGOs and individuals interested in practicing feminist consultation methodology.

According to the feedback from the attendees to the speakers after the conference, this event was an inspiring and empowering experience that motivated them to keep advocating for gender equity and empowering women leaders in their communities and industries.

Personal Reflection

As a psychology major student, attending this event on “Young Women Smashing Power Structures by Feminist Consultations” held by World YWCA introduced me to a new concept of “feminist consultation methodology” and valuable insights into how this approach can be used to bring marginalized voices to the forefront in policy-making.

Through the discussions and personal experiences shared during the event, it became clear to me how crucial it is to invest in processes that uncover and amplify the voices of marginalized communities and bring them to the forefront of policymaking. This includes addressing the forgotten and ignored aspects of their experiences that have been historically excluded from decision-making processes.

I found it fascinating to see how “feminist consultation methodology” aligns with principles of community psychology that I know of from my studies. For example, community psychology also emphasizes the importance of hearing opinions and views of all people in the community through collaborative and participatory approaches. The emphasis on community engagement, participatory decision-making, and empowerment of marginalized groups in feminist consultation methodology resonated with me. By applying these principles, we can promote more inclusive and equitable approaches in various contexts, including psychology research and practice. To provide a specific example, community psychology has been used in disaster response efforts to ensure that affected communities have a say in the recovery process.

Participating in this event has deepened my understanding of the practical applications of “feminist consultation methodology” in achieving tangible progress towards gender equality. It has motivated me to explore more specific ways in which feminist principles can be incorporated into my future work as a psychologist, scholar, and feminist. Specifically, I am now committed to exploring ways in which I can ensure that my work is inclusive and empowering to all individuals and communities. I plan to seek out further training and opportunities to incorporate feminist principles and methodologies into my practice, and to actively seek out partnerships with organizations that prioritize feminist leadership and consultation.

References


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Contact Information of Speakers

| World YWCA | Non-profit Organization | Tel: + 41 22 929 6040 |
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| Ms. Jeevika Shiva | Panelist | Email: worldoffice@worldywca.org |
| Ms. Suchi Gaur | Moderator | Email: communications@humanrights.gov.au |
| Ms. Thabani Sibanda | Panelist | Website: https://www.humanrights.gov.au/about/president-commissioners |

Reported by Mengqi Du, a member of the Student Division of the International Association of Applied Psychology pursuing a masters’ degree in the Department of Developmental Psychology, Columbia University Teachers College, and a student in Professor Judy Kuriansky’s class on “Psychology and the United Nations.” In addition to my scholastic work, I have five years of experience working internationally to support young girls’ education rights in Yunnan, China. I am interested in providing quality education to girls in low socioeconomic status, including providing education and life resources to under-resourced women and girls in order to eliminate gender inequality in Southwestern China. Southwest China is known for its diverse ethnic and cultural communities, many of whom face significant socio-economic challenges and discrimination, particularly women and girls. Addressing gender inequality and promoting girls’ education in Southwest China aligns with the broader goal of promoting gender equality and empowerment in under-resourced communities.
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