

Empirical Support for Psychology in Malaysia

Meg Milligan^{1*}
Michael McCormick²
Yee Siew Lim³

^{1,2}*Department of Psychology
Troy University, USA*

³*American Degree Program
SEGi University, Malaysia*

*Corresponding e-mail: [mmilligan@troy.edu]

The Malaysian Journal of Psychology/Jurnal Psikologi Malaysia (1985-present) is the flagship outlet for psychological research in Malaysia. While considerable progress has been made in the development of psychology as a field in Malaysia, including psychological research, few studies have examined the relative contributions from different divisions or assessed diversity and inclusion in other areas. Issues published online between 2008 and 2022 containing 315 research articles were examined and coded into divisions using the taxonomy provided by the American Psychological Association (APA). Personality and Social Psychology (Division 8) was identified as the most frequently researched area, followed by Clinical/Counseling Psychology (Division 12/17). Underrepresented specializations included Division 5 (Quantitative and Qualitative Methods) and Division 6 (Society for Behavioral Neuroscience and Comparative Psychology), among others. The majority of articles were survey/questionnaire-based correlational studies (63.8%), followed by archival analyses (13.4%), interviews (13%), and experimental designs (7.3%). Articles focused primarily on adult populations and were adequately powered. Two-thirds of first authors were female and most papers (67.6%) were first authored by a Malay ethnic researcher, followed by Chinese (13%) and Indian (6.7%), which reflects the current ethnic distribution in Malaysia (69.9%, 22.8%, 6.6%, *statista.com*). Recommendations for the further development of psychology in Malaysia are included.

Keywords: JPM, APA, psychology in Malaysia, research

Each nation, culture, and discipline has its own history. This history is built on evidence from the past and present and is reevaluated and updated over time, filtered through a current lens. While there is no consensual history of a location or area of study, it is widely accepted that Malaysia has a long history of informal psychology with a formal beginning in 1979 when the first Department of Psychology was

launched at the Universiti Kebangsaan Malaysia (Ansari et al., 2005, Eds.; Khan & Verma, 2012). This paper contributes to understanding the history of psychology in Malaysia by examining articles in *The Malaysian Journal of Psychology/Jurnal Psikologi Malaysia*, the flagship journal in psychology published in Malaysia, during the years 2008 to 2022.

During a class in Kuala Lumpur, Malaysia, conducted by the first author on the history of psychology, it became apparent that psychology had a predominantly Western theoretical and empirical base. We wondered to what extent does this foundation apply and not apply to Malaysia? This question informed the structure of a class project to construct a history of psychology in Malaysia. This experience sparked an interest in investigating this topic empirically.

Globalization, a process during which “cultures influence one another and become more alike through trade, immigration, and the exchange of information and ideas” (Arnett, 2002, p. 774) and other factors, such as increasing recognition of cultural influences on human psychology (Heine, 2020), effected a greater focus on expanding psychology beyond its Western thinking and research base. This internationalization synthesizes psychological knowledge “to create a more culture-informed, inclusive, and globally applicable psychology” (van de Vijver, 2013, p. 762).

As Arnett (2008) noted, “American psychology produces research findings that implicitly apply to the entire human population, the entire species” (p. 602). However, his study found that 95% of research participants who contributed to building psychology’s knowledge base were in the United States (U.S.), representing only 5% of the world’s people. He reported this after examining the articles in six flagship psychology journals published in the U.S. from 2003 to 2007. Thalmayer, Toscanelli, and Arnett (2021) conducted a follow-up study to Arnett’s (2008) and examined the articles in the same six journals but published between 2014 and 2018. They reported that 11% of research participants were located outside of the U.S. That meant that 89% of research participants were in the U.S. Furthermore, American psychology has a Western philosophical foundation dating from

ancient Greek thinkers two thousand years ago, then filtered through European philosophers. This might affect our understanding of the psychology of people in general outside of cultural influences.

These studies indicate the importance of developing psychology in ways that are meaningful and supportable to the populations they represent, rather than assuming that this Euro-American psychology is universally applicable. Van der Veijver (2013) adds that the internationalization of psychology aims to build theories that are generalizable while accommodating cultural differences and that this process is a “moral, intellectual, and professional” imperative (p. 762). These goals depend on research contributions from non-Western sources, which was an impetus for our study.

Many questions were raised during our class project, such as which disciplines in psychology have more empirical support from studies conducted with Malaysian participants? This could indicate which areas are more well-developed. An associated question is which specialty areas might benefit from more research focus? We investigated this and other related questions through an archival study of articles in the *Journal of Psychology in Malaysia/Jurnal Psikologi Malaysia*, the flagship psychology journal in Malaysia, published since 1985, with open digital access to issues from 2008 to 2022. This journal is published in Malay and English. Based on degree programs offered in Malaysia and employability statistics (Nee, Beevi, Khairudin, & Salem, 2022), we predicted more articles on counseling/clinical psychology, industrial-organizational psychology, developmental psychology, and educational psychology, rather than other fields in psychology.

We categorized articles based on the American Psychological Association’s (APA, <https://www.apa.org>) 54 divisions plus their three currently proposed

divisions (i.e., financial psychology, society of eating disorders and body image, and entertainment psychology), as this is a widely accepted list of Western professional subdisciplines and interest groups in psychology, cognizant of Malaysia's history of British rule (1824-1957) and attendant influence.

The British Psychological Society (BPS, <https://www.bps.org.uk/member-networks>) has ten divisions (Academics, Researchers and Teachers in Psychology, Clinical Psychology, Coaching Psychology, Counselling Psychology, Educational and Child Psychology, Forensic Psychology, Health Psychology, Neuropsychology, Occupational Psychology, Sport and Exercise Psychology) plus the Scottish Division of Educational Psychology. This information is included because Malaysia has a history of British rule and it might seem logical to use the British divisions for coding purposes in our study. However, since there are so few, they are general, and they omit many specializations in psychology, we decided to use the more detailed and comprehensive APA model instead. However, awareness of the BPS divisions can be helpful for professionals who are determining which divisions to establish in Malaysia.

The Malaysian Psychological Association/Persatuan Psikologi Malaysia (<https://www.psim.org.my>) does not have formalized divisions. We added Islamic Psychology, an interpretation based on the Qur'an (Ansari, 2010/1992), as a category to code since, according to the Department of Statistics Malaysia (<https://www.dosm.gov.my>), Malaysia is predominantly Islamic (63.5% in 2020), and has two major legal systems, secular and Sharia (Shuaib, 2012).

Method

Articles Analyzed

All articles housed in the online archives of the journal were included in our analysis. These ranged from volume 22 in 2008 through volume 36(2) in 2022. In total, three hundred and fifteen published articles were analyzed and coded by two independent reviewers with PhDs from universities in the U.S. in Clinical, Counseling, and Applied Psychology (reviewer 1, who is also a licensed psychologist, Alabama, U.S.), and Social Psychology (reviewer 2) who have published and presented extensively in their respective fields. When necessary, Google Translate was used to convert text from Malay into English.

Procedure

Initial codings were completed using the entire list of APA divisions plus the three currently proposed divisions (i.e., financial psychology, society of eating disorders and body image, and entertainment psychology) and Islamic Psychology (N = 58 divisions). Each article was read sufficiently by each reviewer to identify the correct APA division, focusing particularly on the method and results sections, but the entirety of an article was not read when deemed unnecessary. APA designations were based on the expertise and experience of each reviewer, which allowed for greater diversity in viewpoints and reduced any bias in favor of a particular field.

It quickly became clear that multiple designations were reasonable for many of the articles, and for those articles, each reviewer designated two or three divisions as deemed appropriate. Initial codings were discussed between reviewers and it was decided to group several APA divisions for the purposes of clarity. Divisions 12 (Society of Clinical Psychology), 17 (Society of Counseling Psychology), and

53 (Society of Clinical Child and Adolescent Psychology) were combined into a general “Clinical Psychology” division; divisions 7 (Developmental Psychology) and 20 (Adult Development and Aging) were combined into a general “Developmental Psychology” division; divisions 15 (Educational Psychology) and 16 (School Psychology) were combined into a general “School-Educational Psychology” division. Further, any article that focused on addiction was designated as division 50 (Society of Addiction Psychology), even if it might also be placed in 12 (Society of Clinical Psychology), 17 (Society of Counseling Psychology), or elsewhere. Similarly, any article focusing on an inmate or restricted population (e.g., youth camps) was designated as division 41 (American Psychology-Law Society). Sufficient inter-rater reliability ($r(315) = .64, p < .001$) was obtained after these discussions, given the subjective nature of the task and considerable overlap that still existed between many of the divisions.

The identification of the author’s sex and ethnicity in this study was based on a combination of methods, including online research using platforms such as Google© and LinkedIn©, consideration of demographic information and location, personal experiences, and consultation on third-party opinions on names that are not found on the internet. While best efforts were made to ascertain sex and ethnicity through various methods, the potential for error and uncertainty remains due to the inherent limitations of such approaches.

Results

Our analysis focuses primarily on the general trends that emerged in the data, given that many articles could have been placed in a different division and specific article counts for each division are arguably less accurate. As can be seen in Table 1, division 8 (Personality and Social Psychology) was identified most often by

both reviewers (28.7% of articles for reviewer 1 and 33.9% for reviewer 2), suggesting that Personality and Social Psychology is particularly well-represented in psychological research in Malaysia, and may be Malaysia’s most fully developed area. Both reviewers also agreed that Clinical Psychology was the second most well-represented area (14% for reviewer 1 and 16% for reviewer 2), followed closely by Industrial-Organizational Psychology. The reviewers also agreed on the next two most well-represented divisions but reviewer 1 found Developmental Psychology to be followed by School-Educational Psychology, while reviewer 2 reversed the order of these divisions.

Subsequently, several articles were designated as belonging to division 41 (American Psychology-Law Society), division 50 (Society of Addiction Psychology), division 38 (Society for Health Psychology), or division 3 (Society for Experimental Psychology and Cognitive Science), but there was less agreement about the amount of representation within each division and remaining divisions were represented relatively infrequently. Notably, only one or fewer articles were designated as belonging to several large and active divisions in the APA, including division 5 (Quantitative and Qualitative Methods), division 6 (Society for Behavioral Neuroscience and Comparative Psychology), division 10 (Society for the Psychology of Aesthetics, Creativity and the Arts), and several others. These findings not only indicate which areas are more or less well-developed in Malaysian psychological research, but they also highlight which areas may need to receive greater emphasis going forward.

Contributions by Study Type

Between 2008 and 2022, the majority of articles published in the journal were survey/questionnaire-based correlational

studies (63.8%). These were followed in frequency by archival analyses (13.4%) and interviews (13%). Experimental research accounted for only 7.3% of all published studies, and a small number of other studies were also reported (2.5%). These trends were relatively stable across years, with survey/questionnaire-based studies accounting for no less than 50% of all published studies since 2012 and experimental research remaining underrepresented in all years. The overall number of each study type increased due to an increase in publishing volume, but the contribution of different study types remained relatively consistent. These findings point to a continuing trend in Malaysian psychological research in favor of relatively simple, prediction-focused designs over more complex, causal-based (i.e. experimental) designs, which results in a less-rigorous body of knowledge for making public policy and other important decisions. As such, an increase in the representation of experimental-based studies is recommended within Malaysian psychology research, a development which should follow with increased sophistication in the field.

Sample Size by Study Type

Average sample sizes were within the expected range for all study types. Of 271 studies reporting sample size, questionnaire-based studies had the largest average sample size overall (N=453.4), followed by archival (N=640.2) and then observational studies (N=103). Sample sizes for interview-based studies were understandably smaller (N=22.5), and experimental studies appear to have been adequately powered for comparisons between two conditions (N=67.9). These findings were relatively consistent across years with only the exception of a small number of studies (N=1-3) in each area that had larger samples. Thus, while some aspects of research in Malaysia continue to develop, the recruitment of sufficient

samples to allow for adequately powered studies appears well-established.

Contributions by Subject Age Group

Reporting of participants' ages was inconsistent in the journal, a trend that continued through 2022, with nearly half of all papers failing to report this information. Among studies that did report participant's age, the bulk focused on adult populations broadly defined: 22.5% focused predominately on young adults (aged 18-25), an additional 38.1% focused on adults (aged 18-60), and an additional 1.3% focused on older adults (60+). Adolescent focused studies (ages 13-17) accounted for 25% of published research and an additional 6.3% were focused on the transition from adolescence to young adulthood (included adolescents and young adults). Finally, research primarily focused on children accounted for nearly 5.6% of all published articles. These findings suggest that research focusing on the earliest and latest period of life may be underrepresented in the Malaysian psychological literature, but the full-extent of this issue is unclear due to a lack of reporting and greater fidelity in the reporting of participant's ages is recommended.

Contributions by First Author's Sex

To analyze the relative contributions of male and female researchers across the years to psychological research in Malaysia, first authors were coded as male or female and frequencies were calculated according to the year of publication. This analysis revealed that females have appeared as the first author considerably more often than males overall, with females contributing 67% of first authorships between 2008 and 2022 (males contributed 31.4%, and 1.6% were not clear). Females published more as first authors than males every year since 2014, with 2022 being particularly notable in that only 1 out of 20

published articles were first authored by a male. Thus, contrary to historical trends in the West, the representation of women in Malaysian psychological research has been well-established.

Contributions by First Author's Ethnicity

Malay researchers accounted for the bulk of the intellectual capital in published papers, as indicated by first authorship; at least 50% of all papers published in any year between 2008 and 2022 were first authored by a Malay scientist, with the sole exception of 2009. A full 67.6% of all papers published overall were first authored by a Malay scientist, Chinese (13%) and Indian (6.7%) researchers followed in proportion, and these trends remained relatively stable from 2008-2022. "Foreign" or other designated researchers formed the bulk of the remaining publications. Thus, the Malaysian psychological literature, as reflected in the journal, is primarily composed of research conducted by Malay scientists and can be thought of as a predominately Malay product.

Discussion

Our results are consistent with Nee et al. (2022) who found greater student interest in pursuing graduate degrees in clinical, counseling, forensic, industrial-organizational, and educational psychology corresponding to future employment needs in Malaysia. Aside from Personality and Social Psychology (division 8), Counseling/Clinical, Industrial-Organizational, School-Educational, and Developmental psychology have the most research representation in *The Malaysian Journal of Psychology/Jurnal Psikologi Malaysia*. Division 8 represents a relatively general area of focus, however, and arguably two distinct fields of psychology (Personality and Social), which may have resulted in a larger number of articles being designated in that division. Thus, the

emphasis on the latter areas of research still most likely reflects predominant trends in training, and suggests greater interest in these areas and more locally applicable knowledge.

The lack of research representation in division 5 (Quantitative and Qualitative Methods), division 6 (Society for Behavioral Neuroscience and Comparative Psychology), and division 10 (Society for the Psychology of Aesthetics, Creativity and the Arts), among others, may likewise indicate a relative lack of training in these areas and/or interest or locally applicable knowledge. Divisions 5 and 6 are vibrant and growing areas in Western psychological circles, however, and will likely receive significant focus and funding in the coming years. Additional emphasis on research training in these and other divisions may be recommended, therefore, to expand the scope of psychological research within Malaysia and its connections with the global research community.

While some aspects of psychological research in Malaysia were found to need further development, others upheld world-class standards and/or exceeded trends in the West. The reporting of sample demographics (sample size, ages, etc.) was notably missing in an unfortunate proportion of papers, for example, but when reported, sample sizes were on-par with those in Western nations. In terms of first-author representation by female scientists, Malaysian psychological research exceeds current Western standards and has done so since at least 2008. The representation of Malaysian scientists in Malaysia's premier psychology journal is also commendable. As noted, following decades of colonial rule, psychology as a formal practice was only established in Malaysia in 1979, but despite these challenges and significant influences from other Western and regional sources, by at least 2008 a sufficient number of Malaysian scientists were trained and employed in research positions

to contribute the largest percentage of articles published in the journal. This accomplishment reflects the talents and industriousness of Malaysian researchers, and bodes well for the development of psychological research in Malaysia in future decades. Whether this is intentional on the part of the journal's editors, reflects the distribution of submissions, or some other reason is unknown, but it is interesting to note that only 12 percent of articles between 2014, Volume 2, and 2022 were authored by professionals affiliated with institutions outside of Malaysia. Prior to 2014, Volume 2, author affiliations were not identified.

Obviously, there are gaps in empirical investigations. For example, there was no research involving brain imaging (no fMRI, EEG, etc.), which could indicate insufficient access to equipment and requisite training. We also noticed very little research on psychology of women and little on applied behavior analysis (ABA), both of which are growing areas in the U.S. The first article that focused on autism was published in 2008, and the next was in 2017, nine years later, and only six more since 2017. This represents an increase in representation but still appears to be understudied in Malaysia.

There were no articles focused on addiction until 2013, when two were published. Between 2017-2020, seven were published (0 in 2021 or 2022). Substance use in Malaysia, particularly among their youth, is a growing concern exacerbated by the recent COVID-19 pandemic, as highlighted recently in a large nationwide study by Ismail et al. (2022). This is an area that might profit from more focus. Eight articles based on Islamic psychology were found.

Four between 2010 and 2015, one in 2018, and three in 2020. Collaborations between Islamic and Western psychological researchers could be fruitful to ensure accurate representations of perspectives and to seek an understanding of the human psychology that connects all of us, as well as the nuances that derive from cultural influences.

Limitations of our study include a sample restricted to only one journal and two evaluators and the possibility of inaccuracies in the sex and ethnicity designations. Another is lack of access to journal issues published before 2008. These are in print, but the pandemic precluded viewing them. It would be interesting to add this information in another study to have a more complete understanding.

Addressing the needs identified in our study could include inviting guest editors to assemble articles for publication as special issues covering less-represented areas of psychology. This could encourage local research and spur the further development of psychology in Malaysia as a broader-based, empirically supported discipline.

We hope our analysis and commentary are helpful for the journal and its readership. Psychology is a burgeoning field in Malaysia with vast applied potential and opportunities for educators, researchers and practitioners, and, of course, ultimately, for the benefit of its people.

Table 1

Frequency of APA Division Designations by Reviewer 1 and Reviewer 2

<u>Division</u>	<u>Reviewer1</u>	<u>Reviewer2</u>
Social Psychology (8)	86	107
Clinical/Counseling Psych (12)	44	52
I/O Psychology (14)	36	40
Developmental Psychology (7)	34	28
Education/School Psych (15)	22	38
Health Psychology (38)	21	5
American Psychology-Law (41)	19	15
Addiction Psychology (50)	11	9
Exp. & Cognitive Science (3)	10	7
Devel. Disabilities/ASD (33)	7	4
Couple & Family Psychology (43)	6	1
Psych of Religion/Spirituality (36)	3	1
Sport, Exercise & Perf Psych (47)	3	1
Rehabilitation Psych (22)	2	0
Psych of Sex Orient/Gender Div (44)	2	1
Group Psych & Psychotherapy (49)	2	0
General Psychology (1)	1	0
Quant & Qual Methods (5)	1	0
Financial Psychology ()	1	0
Behavior Analysis (25)	1	0
Community Research/Action (27)	1	0
Study of Culture/Ethnicity/Race (45)	1	0
Media Psych & Technology (46)	1	0
Psych Study of Social Issues (9)	0	5
Consumer Psychology (23)	0	1

- N=315 articles in total. APA Divisions are listed in order of frequency, based on the designations of Reviewer1. Division 12 represents the combination of APA Divisions 12, 17, and 53. Division 7 represents the combination of APA Divisions 7 and 20. Division 15 represents the combination of APA Divisions 15 and 16.

References

- Ansari, Z.A. (2010, Ed.). *Qur'anic concept of human psyche*. AI Ittehad Publications (Pvt. Ltd.) Original work published 1992).
- Arnett, J.J. (2002). The psychology of globalization. *American Psychologist*, 57(10), 774-783.
- Arnett, J.J. (2008). The neglected 95%: Why American psychology needs to become less American. *American Psychologist*, 63(7), 602-614. doi: 10.1037/0003-066X.63.7.602
- Heine, S.J. (2020). *Cultural psychology* (4th ed.). W.W. Norton & Company.
- Ismail, R., Abdul Manaf, M. R., Hassan, M. R., Nawi, A. M., Ibrahim, M., Lyndon, N., Amit, N., Zakaria, E., Abid Razak, M. A., Zaiedy Nor, N.

- I., Shukor, M. S., & Kamarubahrin, A. F. (2022). Prevalence of drug and substance use among Malaysian youth: A nationwide survey. *International Journal of Environmental Research and Public Health*, 19, 1-15. <https://doi.org/10.3390/ijerph19084684>
- Khan, A, & Verma, S. (2012). History of Psychology, *International Journal of Psychology*, 47:sup1, 459-466, doi: 10.1080/00207594.2012.709109
- Nee, K.G., Beevi, Z., Khairudin, R., & Salem, E. (2022). Employability of the psychology community in Malaysia. *Jurnal Psikologi Malaysia*, 36(1), 79-96.
- Thalmayer, A.G., Toscanelli, C., & Arnett, J.J. (2021). The neglected 95% revisited: Is American psychology becoming less American? *American Psychologist*, 76(1), 116-129. doi: 10.1037/amp0000622
- Shuaib, F.S. (2012). The Islamic legal system in Malaysia. *Pacific Rim Law & Policy Journal*, 21(1), 85-113.
- van de Vijver, F.J.R. (2013). Contributions of internationalization to psychology: Toward a global and inclusive discipline. *American Psychologist*, 68, 761-770.