A Global Perspective on Psycho-Educational Assessment

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For psychologists in less developed countries, psycho-educational assessment is often challenging due to a lack of specialist training and a scarcity of appropriate, psychometrically robust instruments. This article focuses on school psychology and psycho-educational assessment in three countries: Bangladesh, China and Iran. Despite differences in demographic and cultural features, these countries share similar issues that restrict the practice of psycho-educational assessment. We conclude that it is important for psychologists in Western countries to support professional training and testing practices in less developed countries.

Keywords: psycho-educational assessment, testing, multicultural, Bangladesh, China, Iran

Geographical remoteness, political, economic and cultural factors have restricted the practice of psychology in many parts of the world. Although school psychology is a well-established specialisation in most Western countries, children in less developed countries often have no access to psychologists. Where psychologists are employed in schools, their roles generally focus more on advising educators about school policy, providing health education programs, and implementing group interventions for areas such as social skills, behaviour and vocational guidance, rather than on offering psycho-educational assessment. Students who are identified as needing assessment tend to be referred to doctors or sometimes to specialist centres where appropriately trained psychologists may be available.

In less developed countries, the lack of psycho-educational assessment in schools is due to several factors. Psychology training is often limited to undergraduate programs and, even when specialised postgraduate degrees are available, there may be insufficient training in assessment because of the restricted availability of tests and trainers. For less developed countries, the high cost of tests and record forms can be difficult or impossible to justify. Translating, adapting and psychometrically evaluating tests that have been developed in Western countries is a complex and

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costly procedure (Hambleton & Li, 2005). Developing new tests locally is similarly costly and requires researchers with considerable expertise in psychometrics and test development, as well as a guaranteed market for tests that are produced. Another factor that impacts on the quality of psycho-educational assessment in most less developed countries is the lack of enforced codes of ethics to guide test use.

In this article we take a global perspective on psycho-educational assessment. To illustrate the issues and progress that is being made around the world, we focus on three countries: Bangladesh, China and Iran. Data from UNICEF (www.unicef.org) and World Bank (www.data.worldbank.org) show that although China has by far the largest population of these three countries (around 1,385 million compared with 156 million in Bangladesh and 77 million in Iran), Bangladesh has a higher proportion of children and young people (37% compared with 22% in China and 27% in Iran) and a much greater population density (1,203 people per square kilometre, compared with 145 in China and 48 in Iran). In addition, an estimated 43% of Bangladesh's population lives below the international poverty line of USD1.25 per day, compared with 12% and 1.5% in China and Iran, respectively.

Although contrasting with respect to many demographic and cultural features, each of these countries has experienced political events that disrupted the development of the profession of psychology, and each has faced challenges in establishing a specialisation in educational or school psychology. The purpose of this article is to highlight the need for psychologists in Western countries to support the development of testing practices in less developed countries. In describing the challenges associated with psycho-educational assessment in other cultural groups, we also aim to promote reflection on the practices that are used in Western countries to assess students from non-dominant cultures (e.g., indigenous or refugee children).

Bangladesh

Bangladesh is one of the most densely populated countries in the world. In an area only twice the size of Tasmania, there are currently more than 156 million people with a population growth of 2 million per year. Estimated rates for some developmental and learning problems are higher than in many other countries. For instance, intellectual disability is reported to affect up to 20% of children aged 2 to 9 years (Islam, Durkin, & Zaman, 1993) while it is estimated that 15% of the population have diagnosable mental health problems (Mullick & Goodman, 2005). In addition, Bangladeshi children and adolescents experience a range of difficulties that are associated with their context, including widespread malnutrition, health problems such as chronic diarrhoea, a primary school dropout rate of almost 50%, arsenic-contaminated water supplies, child labour and early marriage.

Educational psychology is a relatively new field in Bangladesh. Although psychology was introduced as an academic discipline at the University of Dhaka in 1965, it was not until 1997 that an applied clinical program commenced. Educational psychology became available as a postgraduate specialisation in 2006, followed by counselling psychology in 2009. Since then, around 49 students have undertaken 1-year masters' degrees in educational psychology and 61 have studied counselling psychology. In order to be fully qualified, further study (a 2-year MPhil

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degree) is required. So far, three educational psychology students have completed this additional qualification.

In Bangladesh, approximately 60 educational or counselling psychologists currently work in areas such as hospital-based child development centres, early development programs, special schools or institutes, adolescent helplines and research centres. The first school psychologist was employed in Bangladesh in 2010 and, although there are now up to 10 psychologists working in schools, they are employed by private rather than public schools. Their work primarily involves providing individual and group counselling and conducting workshops (e.g., classroom discipline, behaviour management, online or adolescent issues) for students, parents and teachers. Psychometric testing is rarely undertaken; instead, observations and informal checklists are used and, if necessary, students are referred to hospital-based child neurodevelopment centres for formal assessment.

There are currently child development centres in 15 government medical college hospitals where neurodevelopmental testing is provided for children with developmental delays and disabilities. The tests used in these centres were developed in Western countries, with the exception of the Independent Behavior Assessment Scale (IBAS), a measure of adaptive functioning for children aged 2 to 9 years (Munir, Zaman, & McConachie, 1999) and a Neurodevelopmental Screener (Khan et al., 2013; Khan et al., 2014) that originated in Bangladesh. The WISC-IV has been translated into Bangla, the national language of Bangladesh, although no local norms are available. Several other tests have been translated (e.g., previous editions of the WPPSI and WAIS, the Youth Self-Report and the Beck Youth Inventory). However, in the few instances where Bangladeshi norms are available, these generally relate to older versions or only parts of the tests. For example, there are local norms for the non-verbal subtests of the Stanford Binet Intelligence Scale, Fourth Edition and the Bayley Scales of Infant Development, Second Edition. Similarly, Bangladeshi norms are available for the outdated WISC-R and the Denver Developmental Screening Test. In hospital settings and special schools, instruments such as the Autism Diagnostic Observation Schedule (ADOS), the Modified Checklist for Autism in Toddlers (M-CHAT), the Strengths and Difficulties Questionnaire (SDQ) and the Conner's Parent Rating Scales are currently used. Items have been translated with minor adaptations to make them useable in the Bangladeshi context. However, there is generally no systematic process of translation and back-translation.

When educational psychology was introduced at the University of Dhaka, training in psycho-educational assessment was initially dependent on assistance from professionals in the United Kingdom and other countries. Although seen as an integral part of the training program, the focus was more on theoretical knowledge about assessment, with limited opportunities for supervised practice. Currently, students are trained in administration and interpretation of the WISC-IV and the Portage Early Education Guide. In addition, some training on a number of other assessment instruments is provided by child neurodevelopmental centres and non-government institutions for children with special needs.

The practice of psycho-educational assessment in Bangladesh has been hindered by a number of factors. Training in test administration and interpretation has been difficult because of the shortage of personnel who have relevant practical experience. Tests, record forms and associated resources are expensive, and there

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are rarely sufficient funds available to support the process of test adaptation and standardisation. Few tests have been translated into Bangla, adapted for the local culture, and normed in the Bangladeshi population. When attempts are made, appropriate procedural steps in adaptation are often not followed, and at times, separate translations of the same test have been undertaken by different people. Keeping pace with the revision of Western tests presents challenges. For example, by the time the adaptation and norming of the Bayley Scales of Infant Development Second Edition was completed in Bangladesh, the Third Edition was already on the market. These factors combine to severely restrict the practice of psychoeducational testing in Bangladesh.

China

Psychology became an independent science in China at the beginning of the 20th century. The first psychology laboratory was started in 1917, and in 1921 the first university department of psychology and the Psychological Association of China (the predecessor of the Chinese Psychology Society) were founded in Nanjing. During the 1966–1976 Cultural Revolution, psychological research and teaching were dissolved and the psychology institution was disbanded. Most psychologists were sent to do labouring work in the countryside. Since 1979, however, psychology has made rapid progress under China's economic reform and opening up policy. By 2013, the Chinese Psychology Society (CPS) had approximately 9,000 members nationwide and 15 special committees, one of which was educational psychology.

Chinese education is one of the most competitive systems academically. Students are under great pressure to achieve academic success from parents as well as the society, and this pressure potentially results in mental health problems such as depression and anxiety (Zhou, Bray, Kehle, & Xin, 2001). Moreover, a large number of students have a disability. According to the second national survey in China, 83 million people have some type of disability, and 5% are aged 14 or younger. The *Guideline for Mental Health Education in Primary and Secondary Schools,* which was issued by the Ministry of Education in 2001 and revised in 2012, requires schools to provide psychological counselling services for students. As school psychology is a relatively new field, the roles of school psychologists are not yet clearly established but, in practice, they are responsible for mental health education (Jiang & Wei, 2009) that is conducted through group classes and individual counselling. School psychologists seldom conduct psychological assessment and intervention for learning difficulties and other disabilities such as intellectual impairment (Jiang & Wei, 2009). Instead, students with potential learning and developmental disabilities are referred to hospitals for formal diagnosis and intervention.

According to standards issued by the Ministry of Labour and Social Security in 2005, people who have a bachelor's degree in social science and who receive a certain number of credits in professional psychology training programs are able to register for the psychologist qualification examination. Those who pass the examination are granted the career qualification certificate of psychological counsellor. However, psychology training programs often place more emphasis on theoretical knowledge than on application, and provide limited supervised practice because of a shortage of trained practitioners (Hou & Zhang, 2007; Wang, 2005).

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After the Cultural Revolution, to meet an urgent need for psychological tests, the focus was on adapting instruments from Western countries, including tests of intelligence and personality (Higgins & Sun, 2002). Within a short period of time, the major Western tests of intellectual ability were available in Chinese adaptations: Chinese Binet Scale (Wu, 1982), Wechsler Intelligence Scale for Children (WISC; Lin & Zhang, 1986), Wechsler Adult Intelligence Scale (WAIS; Gong, 1983), Wechsler Preschool and Primary Scale of Intelligence (WPPSI; Zhu et al., 1984), and Raven's Standard Progressive Matrices (RSPM; Zhang & Wang, 1989). Since then, the Chinese scales have been updated to correspond with new foreign versions. For example, the WISC-IV was published in 2003 and the Chinese version was revised in 2007 with national norms from a sample of 1,100 children across 12 provinces and 7 regional areas, as well as 300 who were intellectually gifted or had intellectual disability or learning difficulties (Zhang, 2009).

A number of other instruments have been adapted for the Chinese context, including the Denver Developmental Screening Test, the Gesell Developmental Schedules, and the AAMD Adaptive Behaviour Scale (Wei, 1996). In addition, a range of tests has been developed specifically in China, such as the Clinical Memory Test (Xu & Wu, 1986), the Children's Cognitive Ability Scale (Lu & Xu, 1988), and the Chinese Children's Development Scale (Zhou & Zhang, 1994.

There are some limitations associated with current psychological testing practices in China (Higgins & Sun, 2002). First, most widely used tests have been adapted from foreign tests, and relatively few instruments have been developed in China. Higgins and Sun (2002) have criticised the process of revising foreign scales, which often focuses on the consistency of constructs (i.e., the factor structure of the test) and ignores consistency at the measurement level (i.e., the factor loadings and acceptability of each item). Another limitation is the fact that most currently available tests assess general intelligence rather than more specific areas of ability, and there is a shortage of specific tests for children with disabilities. Of concern, it seems that a large number of practitioners who administer tests lack adequate professional training (Higgins & Sun, 2002). In order to regulate psychological testing and the behaviour of test users, the CPS published the *Management Regulations for Psychological Tests* and *Ethical Rules for Psychological Test Practitioners* in 1992. According to these rules, only those with appropriate professional training and qualifications are permitted to conduct and interpret psychological assessments. However, professional training is often as short as two weeks (Higgins & Sun, 2002), and the primary aim of some training programs is financial profit (Higgins & Sun, 2002; Wang, 2005). Unfortunately, the CPS regulations have no force of law and thus cannot prevent unqualified use or misuse of psychological tests.

Iran

Psychology was introduced at Tehran University soon after the university was established in 1935. Although psychologists started working in Iranian secondary schools in 1972, the revolution of 1980 led to the discontinuation of school psychology services. Instead, child counselling centres were established by the Ministry of Education. By 1992, psychologists had started working in schools again, and over the past 20 years there has been increasing awareness of their role. Currently,

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there are more than 12,000 psychologists working in primary, secondary and high schools in Iran. As well, there are psychologists employed in the 750 counselling centres run by the Ministry of Education throughout the country and 120 additional counselling centres within the provinces and metropolises.

Until the 1990s, the majority of Iranian students with special needs were not identified and many children with developmental disabilities did not attend school. But in 1993 the Fifth Law of Development and Evaluation of Education Programs ordained the introduction of health and school readiness assessments for all children at entry to primary school. One of the main aims was to identify children with developmental difficulties and those who would be likely to need specialised support for learning. The program commenced in three metropolises and gradually expanded so that screening now covers 95% of the country. Psychologists are an important part of the program, which also involves health practitioners, speech and language pathologists, optometrists and audiologists. In the first stage of early screening, psychologists assess school readiness using observations and the First Step Scale, a checklist with Iranian norms that covers cognitive, communication and motor skills. Children with suspected difficulties are referred for more specialised assessment in the second stage. At that point, trained psychologists administer tests such as the WISC-IV or the Leiter Nonverbal Intelligence Test (both of which have Iranian norms) or an Iranian developed checklist for autism spectrum disorder, called Hiva (Samadi & McConkey, 2015). The Gilliam Autism Rating Scale (GARS) has also been translated into Persian and evaluated psychometrically in Iran (Samadi & McConkey, 2014), and an Iranian version of the ADOS-2 is currently being developed. Children with special education needs are subsequently referred to early intervention centres and special schools. Although the early screening program appears to be working well, it does not currently extend to all areas of the country, and no research has yet been undertaken to establish the efficacy of the approach.

Despite universal screening, many students with special needs are not identified until after they commence formal schooling. Prior to 1995, there were no psychologists in primary schools and no clear system for identifying children with learning difficulties. In 1995, the Ministry of Education introduced a new program that led to psychologists being employed in primary schools. Students who are struggling with learning are referred to the school psychologist by their teachers or parents. Although psychologists have at least a bachelor's degree in psychology, many are not sufficiently well trained in psycho-educational assessment. Thus, their role mainly involves consultations with parents and informal assessment, followed by referral to counselling centres where appropriately trained psychologists are able to undertake formal assessment of areas such as intelligence, memory and attention.

While the situation has improved with respect to the provision of psychological services for school-aged children, many schools, especially those in remote villages, still do not have access to psychologists. In addition, the range of available psycho-educational tests is quite limited — for instance, there is no measure of adaptive behaviour. Both the WISC-IV and WPPSI-III have Iranian norms that became available in 2011 and 2000, respectively; the Stanford Binet 5th edition also has Iranian norms. Instruments such as the Child Behavior Checklist have been standardised in Iran (Yazdkhasti & Oreyz, 2011), and psychometric properties of the Strengths

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and Difficulties Questionnaire have been reported (Gharehbaghy & Aguilar-Vafaie, 2009). Efforts have been made to standardise a range of other instruments, including the NEuroPSYchological Assessment (NEPSY; Abedi, Malekpour, Oraizi, Faramarzi, & Paghale, 2012). The Conners has been translated for research purposes (Talaei, Mokhber, Abdollahian, Bordbar, & Salari, 2010), but its use in practice is uncertain.

Despite this work in test translation and adaptation, there is a scarcity of properly trained educational psychologists to administer and interpret assessments. Although an increasing number of psychologists are being employed in schools in Iran, their training is usually not sufficient for them to undertake formal psycho-educational assessment. In addition, the sanctions against Iran that have been in place since 1979 have imposed restrictions on the purchase of some foreign tests and resources, and reduced the available financial support for new assessment tools. Developing tests within Iran has been difficult not only due to economic issues, but also because of the limited number of psychometric experts in the country.

Conclusions

Across the three countries, similar issues restrict the practice of psycho-educational assessment in schools. Training for psychologists is often insufficient and the inadequacy of formal regulatory bodies means that standards and ethical procedures in testing are often not enforced. Psychometrically robust standardised tests are either unavailable or lack local adaptations and norms. It seems that psycho-educational tests are used more frequently in research than in clinical practice. The relatively high cost of foreign test instruments is a significant barrier to their widespread use in less developed countries. Economic factors also limit the effort that is invested in developing psychometrically sound local tests.

Given the important role of psycho-educational assessment in determining the learning and developmental needs of students, Western countries need to support professional training and test development in less developed countries. At the individual level, this could involve sharing resources and expertise with psychologists in less developed countries, working as a volunteer, or participating in an overseas study tour. In their recent report, *The State of the World's Children 2015: Reimagine the Future,* UNICEF shows how our increasingly connected world has blurred the lines between local and global issues, thereby facilitating valuable links and collaborations among Western and non-Western countries. The Australian Psychological Society encourages such collaborations through the annual awarding of an International Project Grant and through regular overseas study tours for psychologists. The American Psychological Association and groups such as the International School Psychology Association provide similar support for the development of school psychology in countries where progress has been hindered by economic and political factors, and many universities recognise the value of international study experiences for psychology students.

The issues that face less developed countries also prompt us to reflect on and possibly to question our own assessment practices in Western countries. In what meaningful ways might we proceed in the absence of well-developed, psychometrically robust standardised tests? How can informal assessment complement

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standardised testing and when might it be an appropriate substitute? In particular, how can tests be evaluated for their appropriateness with students who are from the non-dominant culture within a country, such as refugee or indigenous children. The insights that emerge from collaborations with school psychologists in less developed countries clearly have the potential to benefit not only those psychologists, but our own professional practices as well.

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