

URDU TRANSLATION AND CULTURAL ADAPTATION OF SCHEDULE FOR AFFECTIVE DISORDERS & SCHIZOPHRENIA FOR SCHOOL AGE CHILDREN (6-18 YRS) K-SADS-IV R

Sajida Abdul Hussein, Panos Vostanis

ABSTRACT

Objective: The main objective of the study was the urdu translation and cultural adaptation of Schedule for Affective Disorders & Schizophrenia for School Age Children (6-18 yrs) K-SADS-IV R.

Design: Descriptive study.

Place and duration of study: The study was carried out in Karachi, Pakistan from January 2006 to July 2007.

Subjects and Methods: The translation panel consisted of nine members from variety of backgrounds. All member had experience working with children and were fluent in both languages (original and target). The 'Multiple-forward translation' process was applied.

Results: A number of items were reworded and rephrased to meet the cultural, social and religious values of the Pakistani society.

Conclusion: The translation and adaptation of the K-SADS-P-IV-R-U represents an advance in the process of identifying children with mental health problems in Pakistan. However there is a need to conduct further clinical validation studies to establish the reliability and validity of this tool in Pakistan.

Key words: Child psychiatry, Diagnostic tool, Pakistan.

INTRODUCTION

In recent years interest in the problems of translation and cross-cultural adaptation of health and service outcome measures has grown considerably. Often mental health measurements and psychological tests have been developed for content, validity and reliability in one country or language exclusively. Some of these instruments are then used in different languages and cultural settings, but often without detailed attention to the cross-national and cross-cultural adaptation that is necessary¹. while the ideal solution is to develop indigenous instruments and establish their psychometric properties

in the local population, this is not always possible because of lack of resources and expertise. Furthermore, most health constructs are universal and can be applied to diverse populations after cultural adaptation. Therefore it is often more feasible to use tried and tested instruments after appropriate adaptation². Literature points out that before any research instruments can be used with populations beyond that of their original purpose, source documents should be adapted for language and cultural appropriateness³.

In Pakistan the lack of instruments limits researchers to two alternatives: developing a new instrument or translating, adapting and validating an existing one. The first option has the disadvantages of high cost, prolonged research time and above all, limitations in terms of comparisons with data from other parts of the world. Thus, the second alternative is more economic, efficient and practical.

Health research in Pakistan often requires questionnaires in English language developed in the West to be translated into the local language. Many of the factors measured by these questionnaires are complex and

Sajida Abdul Hussein, MSc child and adolescent mental Health (PhD Candidate) University of Leicester, Greenwood Institute of Child Health, Westcotes House, Westcotes Drive, Leicester, LE3 0QU, UK.
E-mail: sa227@leicester.ac.uk

Panos Vostanis Professor of Child and Adolescent Psychiatry, University of Leicester (Greenwood Institute of Child Health).

Correspondence:

Sajida Abdul Hussein

apply to a different culture. Simple translations may lead to problems of validity and reliability in the Pakistani setting².

A recent systematic review of psychiatric ratings scales in Urdu (official language of Pakistan) identified only nineteen questionnaires. Six of these questionnaires were developed indigenously in Urdu while thirteen were translated from English. All the tools were for adult populations with the exception of the Strength and Difficulties Questionnaire (SDQ), designed to screen emotional and behavioural problems in children which has been translated and validated in Pakistan⁴.

Therefore there is a need in Pakistan to translate and adapt instruments according to the culture. Cultural adaptation of research instruments aims to achieve, as far as possible, research tools that are 'culture-free' or culturally equivalent. An instrument can be considered culturally equivalent when all forms of biases, or social norms specific to the culture of origin, have been removed⁵.

The process of translation and adaptation can be broken down into three steps: (a) the translation process; (b) cross-cultural verification and adaptation; and (c) verifying the psychometric properties of the instrument in the target population¹. The first two steps of the process will be considered in this paper, which will describe the development of a translation protocol, and the cultural adaptation process. The third step i.e. verifying the psychometric properties of the instrument will not be addressed in this paper.

Kiddie Schedule of Affective Disorders & Schizophrenia for School-Age Children

The Kiddie Schedule of Affective Disorders & Schizophrenia for School-Age Children (6-18 years) (K-SADS-P-IV) was updated by Ambrosini and Dixon⁶ to its current version (K-SADS-P-IV-R), which is compatible with the DSM-IV. The research diagnostic criteria (RDC) were used to reach a diagnosis of those syndromes covered both in the research diagnostic criteria⁷ and the Diagnostics and Statistical Manual 4th version (DSM-IV)⁸. The K-SADS-IVR has six major sections: Major Depression, Mania, Eating Disorders, Anxiety Disorders, Behavioral Disorders and Psychoses. The major changes in this current edition are that diagnoses have been updated to include Generalized Anxiety Disorder which is new to the DSM-IV for children and adolescence. In addition, Post Traumatic Stress Disorder (PTSD) also has been added and the 24-item Hamilton Depression Rating Scale (HAM-D) has been included in this edition of the K-SADS. DSM-III symptoms were eliminated which were no longer required by DSM-III-R or DSM-IV⁹. The K-SADS has been translated and its reliability and validity for child and adolescent psychiatric diagnosis has been established in a number of countries including Israel, Greece, Korea, Iran and Spain¹⁰⁻¹⁴.

SUBJECTS AND METHODS

Urdu translation of (K-SADS-P-IV-R)

- **Standard linguistic validation process**

The first step involved a conceptual analysis of the original instrument in collaboration with the author of K-SADS-P-IV-R to define the notions investigated through each item. The authors were in regular communication with Professor Ambrosini via emails who was able to offer guidance and advice throughout the linguistic validation process.

- **Recruitment and briefing of a panel of experts to assist in translation process**

Translation panel members were recruited from different professional backgrounds. As the panel had to assess the translated instruments for use with children in Pakistan it was vital to ensure the panel members had experience. The selected translation panel consisted of nine members from variety of backgrounds; including a psychiatrist and researcher with experience of child psychiatry, a psychologist, paediatrician, GP, social worker, school counsellor, English and Urdu language experts as well as an Islamic scholar.

- **Translation process**

The aim of a linguistic validation process is to obtain a translation of an original instrument in a target language that is both conceptually equivalent to the original and easily understood by the people to whom the translated questionnaire is administered. The translation and cultural adaptation of instruments is an internationally recognized method¹⁵. Translation consists of obtaining a version that is semantically equivalent to the original. Cross-cultural adaptation is necessary when the instrument is intended for use on a target population that is culturally different from that of the original version. In the present study, the translators had sufficient experience and were fluent in both languages (original and target), as well as had the cultural understanding of mental distress and disorder essential for appropriate cultural adaptation of a tool¹⁶.

There are many different methods for linguistic validation of a tool. 'Back translation' method appears to be the most commonly used method of translation¹⁷; however this procedure that can very costly and time consuming especially for more detailed instruments like the K-SADS. An alternative to the use of back-translation includes 'Multiple-forward translation'¹⁸.

This is when two or more translators both translate the instrument from the original language to the new language, and the versions of the instrument in the new language are then compared. For this present study the 'Multiple-forward translation' process was applied. Each section was translated by two members; the researcher then compared the two and compiled the most suitably translated and culturally accepted items. Once

all the three sections of K-SADS-P-IV-R i.e. affective disorder, emotional disorders and behavioural disorders were completed and most suitable translation for each items were compiled, the researcher mailed the translated instruments to the panel members to rate the appropriateness of the translation on a three point rating scale (disagree, needs amendment, agree). Each panel member was expected to rate the appropriateness of the translation on two basic guidelines, firstly, does this translation represent the idea that is conveyed by the original statement in English. Secondly, does that translated item reflect the cultural equivalence rather than linguistic equivalence¹⁹.

Those items that failed to achieve consensus in translation were amended and reworded/phrased based on unanimous decision of the panel members. Proof-reading of the translated Urdu version was carried out by two independent consultants who were not part of the original translation process. Once again the researcher compared the suggestions put forward by the independent proof reader and incorporated the results into the final draft. A review of the final draft of translated Urdu K-SADS was done by a child psychiatrist from Pa-

kistan practicing in the UK, with excellent command over both English and Urdu. Suggestions put forward by the reviewer were incorporated into the final version of K-SADS Urdu.

RESULTS

Cultural adaptation of K-SADS items

- Translation included changing some of the items to make them consistent with the children's community and their cultural/ religious background. The changes were derived from the environmental surroundings of Pakistani children in Karachi. The various provinces of Pakistan have a hugely diverse culture, and adaptations made to an instrument cannot be easily generalized to all regions within the country. A major challenge was to ensure literal and conceptual equivalence of idioms and cultural symbols, as each can contribute to the latent meanings within any communication. For example, 'feeling blue' or 'butterflies in the stomach' required alternative conceptually equivalent terms. A table indicating all the major adaptations made is presented below.

K-SADS items and a list of the adaptation made in Urdu version.

Disorders	Item	Changes made
Genital SXS: Loss Of Libido/ Dating	How has your interest in boys/girls (sex) been this past week? I'm not asking about dating (performance) but about your interest in boys/girls (sex) — how much do you think about it? Has there been any change in your interest in boys/girls (sex) from when you were not depressed?	Items related to sexual activities were re-phrased in order to avoid offending.
Anhedonia/Loss Of Interest	Are you less sexually interested than you used to be [in adolescents]?	
Anhedonia/Loss Of Pleasure	[For adolescents] Do you enjoy sex a much as you used to?	
Poor Judgment	At that time, did you do anything sexual that you usually don't do? What happened?	
Unusually Energetic/ More Active	What about in school, in your club, scouts or gang, church, at home, with friends, hobbies, new projects or interests?	Items referring to the child's social activities added places such as mosque, Imambargah, and Jamatkhana apart from churches, to cater to children of all major religious backgrounds.
Sleep Problems	Do you sleep alone or with your parents?	Keeping in view the socioeconomic and poor housing, this item was scored in view of the family's living condition.

Non-confrontational Stealing	Often persistently stealing over \$10 per week, or something valuable once during present episode. Has stolen very valuable object (over \$50).	Items were converted to Pakistani rupees in order to understand the worth of items stolen.
Vandalism	Often vandalizes or at least once damage was over \$100.00. Most of time will vandalize when the opportunity is there, or at least once damage over \$500.00.	Items were converted to Pakistani rupees in order to understand the worth of items destroyed
Substance Abuse/Dependence	Were you ever addicted to alcohol or drugs?	For substance abuse, specific mention was made regarding the most common drugs in Pakistan.

DISCUSSION

To our knowledge this is the first study that has translated and culturally adapted a diagnostic interview for children and adolescents in Pakistan. The main concern in this process was to ensure semantic, conceptual and technical equivalence between the versions of the instrument²⁰. This study demonstrated the need for cultural adaptation of items to ensure appropriate outcomes. One of the major difficulty also noted in other studies included the translation of local idioms such as 'blues' and 'feeling on guard'²¹. Also specific to Pakistani culture it was essential that the items be worded in a manner that is applicable to all in the society. Pakistan is predominantly a Muslim country and most of the people practice Islam. It was therefore important to respect these religious values and for this reason an Islamic scholar was added to the panel. The scholar reviewed all the items mainly those dealing with issues of sexual relationship and drug and alcohol use and provided suggestions to ensure that religious values have been considered.

Another important factor was related to the household environment of Pakistani families particularly those living in poverty. Pakistan has the highest growth rate of population world wide; the number of people increased eight-fold within a century. The Asian Development Bank (ADB) reports that more than 12 million people were added to the ranks of the poor in Pakistan between 1993 and 1999²². Poverty has a direct effect on the housing conditions of people; with people of low social economic class living in poor housing conditions, on average in Pakistan more than four persons occupy one room in poor households²³. Some items in the interview were related to the home environment and issues of housing such as number of occupants and space, as such these items were phrased and rated within the cultural context.

Although this study is first of its kind and is an important contribution to child psychiatric research in Pakistan, it has some limitations. While a panel of expert was employed to ensure that the face and content validity of the instrument during the translation process was

maintained, there are other methods that can further strengthen the process such as, pilot studies and consultation with community agencies and in particular focus groups with young people and their carers to see which items were culturally inappropriate and needed modification. Our study did not employ such techniques mainly due to lack of resources. Another important limitation is the lack of any Pre-Testing, using either the Probe Technique or the Bilingual method.

Also the current study aimed to translate and adapt the instrument and did not establish reliability and validity of the instrument. If the K-SADS-P-IV-R-U has to be used for diagnostic and research purpose in Pakistan it is essential that future studies are conducted to establish its reliability and validity among Pakistani children.

CONCLUSION

The translation and adaptation of the K-SADS-P-IV-R-U represents a major advance in the process of identifying children with mental health problems in Pakistan. However there is a need to conduct further studies to establish the reliability and validity in Pakistan. The use of a diagnostic tool that has been standardized and translated in different countries will facilitate cross-cultural collaboration and comparison of diverse populations of children.

ACKNOWLEDGMENT

Dr Ehsanullah Syed (Child Psychiatrist), Dr Alvina Ali (Specialist Registrar, Child mental health service UK), Sana-e Zehra (Psychologist), Dr S. Mohamad Aleem (Pediatrician), Dr Tabssum Syed (GP), Saira Taqi (Student Counselor), Rubian Hafeez (NGO, Social worker), Husnara Ansari & Tahira Baig (Educationalist) and Fatimah Hassan (Islamic Scholar) contributed to the translation.

The study was conducted by Learning Support Unit (LSU) of Sindh Education Foundation (SEF) Karachi, Pakistan. We are grateful for the guidance and support provided by Professor Paul J. Ambrosini, (M.D) author of K-SADS IVR, and Jon Arcelus, Leicester General Hospital, UK.

REFERENCES

1. Knudsen HC, Vázquez-barquero JI, Welcher B, Gaité L, Becker T, Chisholm D, et al. Translation and cross-cultural adaptation of outcome measures for schizophrenia. *Br J Psychiatry* 2000;177: S8-S14.
2. Rahman A, Iqbal Z, Waheed W, Hussain N. Translation and cultural adaptation of health questionnaires. *J Pak Med Assoc* 2003; 53: 142-7.
3. Bullinger MJ, Alonso G, Apolone A, Lepelge A, Sullivan S, Wood-Dauphine et al. Translating Health Status Questionnaires and Evaluation their Quality: The IQOLA Project Approach. *J Clin Epidemiol* 1998; 51: 913-23.
4. Ahmer S, Faruqi R, Aijaz A. Psychiatric rating scales in Urdu: a systematic review. *BMC Psychiatry* 2007; 7: 59-65.
5. Smit J, Van den Berg CE, Bekker LG, Stein DJ, Seedat S. Translation and cross-cultural adaptation of a mental health battery in an African setting. *Afr Health Sci* 2006; 6: 215-22.
6. Ambrosini P, Dixon J. Schedule for Affective Disorders and Schizophrenia for School Aged Children - Present Version, Version IVR. (K-SADS-IVR) Philadelphia: Medical College of Pennsylvania, Eastern Pennsylvania Psychiatric Institute, 1996.
7. Spitzer RL, Endicott J, Robins E. Research Diagnostic Criteria for a Selected Group of Functional Disorders. New York: New York State Psychiatric Institute, 1978.
8. American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 4th ed. Washington DC: American Psychiatry Association, 1994.
9. Ambrosini PJ. Historical development and present studies of the schedule for affective disorders and schizophrenia for school-age children (K-SADS). *J Am Acad Child Adolesc Psychiatry* 2000; 39: 49-58.
10. Shanee N, Apter A, Weizman A. Psychometric properties of the K-SADS-PL in an Israeli adolescent clinical population. *Isr J Psychiatry Relat Sci* 1997; 34: 179-86.
11. Kolaitis G, Korpa T, Kolvin I, Tsiantis J. Schedule for affective disorders and schizophrenia for school-age children-present episode (K-SADS-P): a pilot inter-rater reliability study for Greek children and adolescents. *Eur Psychiatry* 2003; 18:374-5.
12. Kim YS, Cheon KA, Kim BN, Chang SA, Yoo HJ, Kim JW, et al. The reliability and validity of Kiddie-Schedule for Affective Disorders and Schizophrenia-Present and Lifetime Version- Korean version (K-SADS-PL-K). *Yonsei Med J* 2004; 45: 81-9.
13. Ghanizadeh A, Mohammadi MR, Yazdanshenas A. Psychometric properties of the Farsi translation of the kiddie schedule for affective disorders and schizophrenia-present and lifetime version. *BMC Psychiatry* 2006; 6:10.
14. Ulloa RE, Ortiz S, Higuera F, Nogales I, Fresan A, Apiquian R, et al. Interrater reliability of the Spanish version of the Schedule for Affective Disorders and Schizophrenia for School-Age Children—Present and Lifetime version (K-SADS-PL). *Actas Esp Psiquiatr* 2006; 34: 36-40.
15. Van Widenfelt BM, Treffers PD, De Beurs E, Siebelink BM, Koudijs E. Translation and cross-cultural adaptation of assessment instruments used in psychological research with children and families. *Clin Child Fam Psychol Rev* 2005; 8: 135-47.
16. Jones PS, Lee JW, Phillips LR. An adaptation of Brislin's translation model for cross-cultural research. *Nurs Res* 2001; 50: 300-4.
17. Tamanin T, Ancona C, Botega N, Rodrigues-Netto N. Translation, Validation and Cross-Cultural Adaptation into Portuguese Language of the 'King's Health Questionnaire.' Heidelberg: International Continence Society Annual Conference.
18. Maxwell B. Translation and cultural adaptation of the survey instruments. In: En Martin MO, Kelly DL eds. Third International Mathematics and Science Study (TIMSS) Technical Report, 1996, 1: Design and Development. Chestnut Hill, MA: Boston College, 1996.
19. Beck CT, Bernal H, Froman RD. Methods to document semantic equivalence of a translated scale. *Res Nurs Health* 2003; 26(1):64-73.
20. Meadows K, Bentzen N, Touw-Otten F. Cross-cultural issues: an outline of the important principles in establishing cross-cultural validity in health outcome assessment. In: Hutchinson A, Bentzen N, König-Zahn C eds. Cross Cultural Health Outcome Assessment; A User's Guide 1997; 34-40.
21. Kleinman A, Good B. Introduction: Culture and depression. In: Kleinman A, Good B, eds. Culture and depression: Studies in the anthropology and cross-cultural psychiatry of affect and disorder. Berkeley: University of California Press, 1985: 1-33.
22. Asian Development Bank; Poverty in Pakistan: Issues, Causes, and Institutional Responses. [Online] 2003 [Cited on March 25, 2008]. Available from URL: http://www.adb.org/Documents/news/PRM/2002/prm_200203.asp.
23. Arif GM. Recent Rise in Poverty and Its Implications for Poor Households in Pakistan. *The Pakistan Development Review, Pakistan Institute of Development Economics* 2000; 39: 1153-70.