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Documentation of AD/HD Diagnostic Practices in High Impact Korean Psychology and Psychiatry Journals

Ji Hee Hong

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DOCUMENTATION OF AD/HD DIAGNOSTIC PRACTICES IN HIGH IMPACT

KOREAN PSYCHOLOGY AND PSYCHIATRY JOURNALS

By

Ji Hee Hong

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DOCUMENTATION OF AD/HD DIAGNOSTIC PRACTICES IN HIGH IMPACT

KOREAN PSYCHOLOGY AND PSYCHIATRY JOURNALS

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Ji Hee Hong

Approved:

_____
Kevin J. Armstrong
Graduate Coordinator of the
Department of Psychology
(Director of Thesis)

_____
Stephen B. Klein
Department Head of the
Department of Psychology

_____
Charles L. Spirrison
Professor of Psychology
(Committee Member)

_____
Kristine M. Jacquin
Assistant Professor of Psychology
(Committee Member)

_____
Philip B. Oldham
Dean of the
College of Arts and Sciences

Name: Ji Hee Hong

Date of Degree: August 6, 2005

Institution: Mississippi State University

Major Field: Psychology

Major Professor: Dr. Kevin J. Armstrong

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Candidate for Degree of Master of Science

Diagnostic and sampling practices documented in studies of participants with

Attention-Deficit/Hyperactivity Disorder in Korean journals were investigated. A reliable

coding system was used under the supervision of a Korean psychology professor to

analyze the diagnostic and sampling documentation practices in articles from high impact

Korean journals. Interrater agreement was 88%. Articles in the *Korean Journal of*

Clinical Psychology and the *Journal of Korean Neuropsychiatry Association* were

reviewed and compared with one another and with archival data (Hartley, 2003) from

leading American journals. Statistical comparisons were made between Korean

psychology and psychiatry journals, Korean and American psychology journals, and

Korean and American psychiatry journals. Results showed that important diagnostic

practices and criteria are either not being employed or not being documented in Korean

journals as well as in American journals. Discussion focuses on recommendations for the

international research community.

DEDICATION

I would like to dedicate this research to my family providing all sorts of tangible and intangible support throughout all my academic endeavors.

ACKNOWLEDGEMENTS

First and foremost, I would express my sincerest gratitude to Dr. Kevin Armstrong, my committee chairman, for his guidance and encouragement throughout the thesis process. He has always had faith in me. I would also like to express my appreciation and gratitude to the other members of my thesis committee, Dr. Charles Spirrison and Dr. Kristine Jacquin for their support and valuable assistance.

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CHAPTER I

INTRODUCTION

The diagnostic criteria for Attention-Deficit Hyperactivity Disorder (AD/HD) have been revised many times in recent versions of the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM*) (American Psychiatric Association [APA], 1980, 1987, 1994, & 2000). According to Armstrong, Channell, McGrath, and Maieritsch (1998), some of these changes create the potential for different interpretations to the research literature. For example, there have been several significant changes in the diagnostic criteria and how symptoms are evaluated in determining if a diagnosis of AD/HD is warranted. This is important because using diagnostic criteria from one *DSM* version can lead to the selection of research samples that differ from those selected on the basis of criteria provided in another *DSM*. Given that many of these changes have occurred in a relatively short period of time, it is important that researchers clearly specify how they are selecting their AD/HD participants. Unfortunately, recent data suggest there has been a significant trend to underreport details relating to methods used to establish or confirm AD/HD diagnostic status. Specifically, Hartley (2003) and Dawkins (2004) discovered that important diagnostic practices and criteria relating to AD/HD were either not employed or not documented in research articles published in high-impact U.S. periodicals.

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To date, no analysis of the international literature has been attempted so it is unclear if this problem is unique to the U.S. literature. Cross-cultural studies should provide an important perspective concerning diagnostic and documentation concerns. In this study, Korean journals were selected for comparison with U.S. journals. Korea and the United States have cultural differences, such as values, school and family surroundings, and social desirability, and these differences can affect both psychopathology *per se* and its diagnosis. This study provides an empirical evaluation of how documentation of AD/HD diagnostic practices in Korea is both different from and similar to the documentation provided in high-impact U.S. journals.

Evolution of AD/HD as a Diagnostic Category

Attention Deficit-Hyperactivity Disorder (AD/HD) is one of the most common reasons for referring American children to mental health clinics (Cantwell, 1996). The most essential feature of AD/HD is "a persistent pattern of inattention and/or hyperactivity-impulsivity that is more frequently displayed and more severe than is typically observed in individuals at a comparable level of development" (APA, *DSM-IV-TR*, 2000). AD/HD accounts for 33-50 % of all child referrals to psychiatric clinics (Cohen, Riccio, & Gonzalez, 1994; Eiraldi, Power, James, & Goldstein, 2000) and affects 3-7% of school-age children (APA, *DSM-IV-TR*, 2000). However, true prevalence rates for AD/HD remain in question due in part to the use of inconsistent diagnostic and sampling practices across studies investigating AD/HD (Cohen et al., 1994).

Historically, the nomenclature and symptoms of AD/HD have been subjected to numerous redefinitions and relabeling (Goldstein & Goldstein, 1990). The second edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-II)* provided the first mention of the term *Hyperkinetic Reaction of Childhood* to describe the disorder (American Psychiatric Association, 1968). At the time, excessive motor activity was considered the essential feature of the disorder, and this view was reflected in the diagnostic label. In recent decades, modifications to *DSM* criteria have reflected changing conceptual models of AD/HD.

With the publication of the third edition of the *DSM* (*DSM-III*; American Psychiatric Association, 1980), a "radical reconceptualization" of this disorder emerged (Barkley, 1998). Inattention and impulsivity were emphasized with these new criteria (American Psychiatric Association, 1980). Also, two subtypes were created in this version of the *DSM*: *attention-deficit disorder (ADD) with hyperactivity (ADD/H)* and *ADD without hyperactivity (ADD/WO)* (American Psychiatric Association, 1980). By 1987, the APA's *DSM-III-R* revised the criteria for this disorder. This change reflected a single diagnostic scheme based on the integration of attentional, hyperkinetic, and impulsive symptoms into a single dimension (Yang, Schaller, & Parker, 2000). Likewise the diagnosis of ADD/WO was removed, and a diagnosis of undifferentiated attention-deficit disorder was given to the individual who would have been diagnosed with ADD/WO (Yang et al., 2000). These subtypes were changed in the *DSM-IV* (American Psychiatric Association, 1994) and these changes were retained in the *DSM-IV-TR* (APA, 2000). Three subtypes were now being used are: a *predominately inattentive type*

(AD/HD-I), a *hyperactivity-impulsivity type (AD/HD-HI),* and a *combined type (AD/HD-C).*

The American *DSM* is not the only system used to classify mental health problems. The *International Classification of Diseases (ICD)* is constructed by the World Health Organization for all general epidemiological and health management purposes and is now used mostly in Europe. The first edition, known as the *International List of Cause s of Death*, was adopted by the International Statistical Institute in 1893 and the latest version, the tenth edition of *International Statistical Classification of Diseases and Related Health Problems* (*ICD-10*; World Health Organization, 1992) is now in use. AD/HD was not classified until the emergence of *ICD-9* (World Health Organization, 1978). While *DSM-III* emphasized inattention and impulsivity, *ICD-9*'s emphasis was placed on hyperactivity (Barkley, 1998). *ICD-10* used the same list of symptoms for hyperkinesis as *DSM-IV* uses for AD/HD but identifies only the equivalent of the C type. Also, there are several differences between *ICD-10* and *DSM-IV* (Lahey & Willcutt, 2002). First, *ICD-10* requires that a minimum number of symptoms of inattention, hyperactivity, and impulsivity each be present, rather than treating hyperactivity /impulsivity as a single dimension. Second, full *ICD-10* criteria must be met independently according to both parent and teacher reports. In Korea, *ICD* criteria are not used often. Chung, Choi, and Lee (1995) did an empirical review of the diagnostic classification systems used in the articles in the leading Korean psychiatry journal, the *Journal of the Korean Neuropsychiatry Association*, published in the 1980s. They found that only 4% of 518 articles used the *ICD* criteria, typically favoring the *DSM* criteria.

This trend of not using the *ICD* appears to have continued. It was found that *ICD* criteria were not used in any article in the Korean psychology and psychiatry journals reviewed for the current study.

AD/HD in Cross-Cultural Perspective

A cross-cultural perspective in studying AD/HD may be particularly interesting given the subjective nature of assessing AD/HD symptomology. Characterizing behaviors is a culturally influenced process: basic concepts used to classify people, such as normal, disordered, abnormal, and average, are culturally constructed and culturally variable (Jacobson, 2002). Certain relevant biological capacities can result in significant differences across groups (Livingstone, 1999), but cultural differences may be more important to consider. Jacobson examined the concept of AD/HD cross-culturally, and he discovered that behaviors of children were seen differently based on the culture.

Even though some evidence available suggests differences in the prevalence of AD/HD among different cultures (Livingstone, 1999), AD/HD has been found in all countries and cultures studied thus far, including diverse Western societies and non-Western cultures (Mann et al., 1992; Mulatu, 1995; Tao 1992). Still, AD/HD is not handled equivalently in different cultures. Each culture evaluates the validity of AD/HD criteria based on its culture; cultural factors influence the clinical manifestation of disruptive behavior disorders (Livingstone, 1999; Reid, 1995). For example, Mann et al. found that clinicians from different countries gave different scores for hyperactive-disruptive behaviors to the videotaped vignettes of four 8-year-old boys. It suggests that perceptions of hyperactivity vary significantly across countries even if uniform rating

criteria are applied. This is one of the reasons that AD/HD diagnostic and sampling practices should be studied cross-culturally. This perspective will likely benefit the assessment and treatment of multicultural children in the U.S. as well as lead to a better understanding of the present problems of inconsistent sampling and diagnostic practices in the research literature as a whole.

<div align="center">Korean Culture and AD/HD in Korea</div>

The organization of Korean culture is complicated and cannot be described in one word. It has unique sub-cultures according to region, social class, and generation. There are, however, some general characteristics of Korean culture that affect the diagnosis of psychopathology of Korean people. First, Korean culture is interdependent. Personal relationships are very important in this culture (Cho, 1995). Second, the view towards destiny is passive. Traditionally, Korean people believe that the life of an individual is decided by supernatural gods and environmental factors or physical factors, not by one's own will (Kim & Kwak, 1992). Korea's culture can be characterized as authoritarian. For example, social class plays an important role in interpersonal relationships. This class structure depends some on socioeconomic status, but even more on age. Korean's authoritarian culture is a result of Confucianism. According to Confucianism, it is important to respect older people and to obey to them. Also, Korean people do not outwardly express their feelings (Cho). In Korean culture, one is supposed to express feelings indirectly. Finally, in Korean culture, the large part of communication is performed non-verbally (Cho).

Researchers such as Sue and Sue (1989) reported that Asian-Americans tend to not visit mental health facilities, to complain of physical symptoms rather than psychological distress, and to prefer physical treatment to psychotherapy. This is also true in Korea, which is one of the reasons that psychology in Korea is not well developed. However, the traditional view of psychopathology is changing. Due to the modernization of Korean society and the improvement of the educational level of Koreans, a scientific view of psychopathology has been replacing the traditional view (Kwon, 1996). The number of studies and psychologists is increasing, and these changes show that psychology in Korea is progressing.

Since the early 1990s, much research on AD/HD in Korea has been conducted. Estimated prevalence rates based on *DSM* criteria for AD/HD are 7.5-9.5% in Korea (Kim, 1998), a rate lower than those provided in earlier studies in the U.S. population but consistent with recent community-based sample studies using the *DSM-IV* criteria. However, AD/HD research in Korea is in the developing stages. There have not been as many studies in Korea as compared to the U.S. but the numbers of Korean studies are increasing steadily.

The Korea Education and Research Information Service (KERIS) maintains a search engine that was used by the author to identify the numbers of articles published on AD/HD in Korean journals. In order to detect possible changes in the number of articles being published, articles were classified as "earlier" if they were published prior to 2000 and "recent" if they were published in 2000 or later. The number of "earlier" articles was 64 (published from 1989 to 1999 - an 11 year time period) while the number of "recent"

articles was 101 (published from 2000 to 2004 - a 5 year time period). This increase must be considered while understanding that societies in Korea and the U.S. differ vastly in how they currently serve children. Children with AD/HD in the U.S. are often eligible for special education services in the "other health impaired" category under part B of the Individuals with Disabilities Education Act (IDEA; Davila, Williams, & MacDonald, 1991). However, children with AD/HD in Korea are not provided with special education services. Korean children with a diagnosis of AD/HD study in the same classrooms with other children. Usually, they are referred by their parents and get therapy and special treatments privately, not in school. In contrast, many U.S. treatment approaches emphasize school consultation models. It may be the case that motivations to pursue or provide the AD/HD diagnosis may differ in Korea versus the U.S. given implications for educational placement decisions, access to extra assistance for children inside or outside of public schools, availability of insurance reimbursement, and other legal, political, or economic factors.

<center>Purpose of the Study</center>

The purpose of this study was to review articles from primary Korean psychological and psychiatry journals in order to document diagnostic practices used by Korean researchers in their studies of children and adolescents with AD/HD, as well as to compare these practices to the results of recent research analyzing U.S. journals. Specifically, articles in a Korean psychology journal (*Korean Journal of Clinical Psychology*) and a Korean psychiatry journal (*Journal of the Korean Neuropsychiatry Association)* were reviewed by using a modified version of a previously-developed,

reliable coding system (Armstrong et al., 1998) in order to document diagnostic practices.

Then, these data were compared to archival data (Hartley, 2003) to determine how

documentation of AD/HD diagnostic practices is different in Korean versus U.S. journals.

Comparisons were conducted between journals within the psychology and psychiatry

disciplines (i.e., Korean psychology versus American psychology journal and Korean

psychiatry versus American psychiatry journals). These journals were selected because of

citation and circulation rates (described below). In the first set of analyses, a Korean

psychology journal and a Korean psychiatry journal were reviewed in order to examine

overall similarities and differences in diagnostic and participant characteristics. The

second set of analyses compared the Korean psychology journal to a leading American

journal, using archival data (Hartley, 2003). In the third set of analyses, the Korean

psychiatry journal was compared with archival data from a leading American psychiatry

journal. It was expected that, like U.S. journals, Korean journals would also demonstrate

poor documentation of diagnostic and sampling procedures for AD/HD research

populations. Discussion focuses on differences and similarities in diagnostic practices

documented across Korean and U. S. journals.

CHAPTER II

METHOD

Materials

Thirty-seven articles published from 1991 to 2004 in the *Korean Journal of Clinical Psychology* and the *Journal of Korean Neuropsychiatry Association* were analyzed. Using the search engine maintained by KERIS described above, appropriate journals were selected for review. In order to be selected, the journals had to meet certain criteria. First, the journals had to represent either a psychological or psychiatric perspective, and had to focus primarily on children and adolescents. Also, the Korean journals were selected because they have the highest impact factors (*Korean Journal of Clinical Psychology, Journal of Korean Neuropsychiatry Association*). Impact factors were evaluated by a social scientist librarian with experience in the international research literatures. She reviewed impact factors provided by Thomson ISI, which publishes citation reports. According to Thomson ISI, the impact factor of a journal is calculated by dividing the number of current year citations to the source items published in that journal during the previous two years. Articles were excluded if participants did not have a formal diagnosis of AD/HD or if a diagnosis of AD/HD did not factor into how the results were presented and discussed.

The primarily psychological journal, *Korean Journal of Clinical Psychology,* and the primarily psychiatric journal, *Journal of the Korean Neuropsychiatry Association,* were used in this study. The *Korean Journal of Clinical Psychology* investigates topics in clinical psychology. Each journal has an interdisciplinary focus and includes physical, social, and developmental influences on mental health. The *Journal of the Korean Neuropsychiatry Association* investigates topics in neuropsychiatry. A total of 37 articles were reviewed, with 17 from the psychological journal, and 20 from the psychiatry journals. All of the articles were written in Korean.

Procedure

A modified version of a previously developed reliable coding system was selected as the basis for the coding system used in this study. The coding system for this study was based on one developed by Armstrong et al. (1998) to identify the diagnostic practices documented in the *Journal of Abnormal Child Psychology* from January 1991 to December 1996. In that study, inter-rater agreements between four reviewers ranged from 93 to 96% (Armstrong et al., 1998). This coding system was then modified and used by Hartley (2003) and Dawkins (2004), who each reported agreements of 95% or higher. For the purpose of the current study, the coding scheme used by Hartley and Dawkins was expanded slightly to include items permitting an empirical summary of the proportion of studies in the target journals that include any information about drop-out rates, replacement behavior, and social validity. See Appendix A.

Reliability of the coding system was established via the use of an expert. Approximately 50% of the articles were coded under the supervision of a Korean professor at Yonsei University in Seoul, Korea. The articles were randomly selected for review and ratings were compared to those provided by the author of this thesis. The interrater agreement was 87.5% [100 X (# of agreements)/ (# of agreements + # of disagreements)]. The author reviewed any disagreements and modified responses where necessary.

CHAPTER III

RESULTS

Overview of Analyses

Data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 12 on a PC platform. ANOVA procedures were used for parametric data (e.g., age and number of participants) while the Cramér's *V* coefficient (*V*) was used for non-parametric (e.g., study type) data. The Cramér's *V* coefficient (*V*) "can be seen as a simple extension of phi" (Howell, 2002, p.165) and "can be interpreted as an index that measures the strength of the association between two variables" (Healey, 2002, p. 322). It was used because the Cramér's *V* coefficient (*V*) is appropriate for association between nominal-level variables and is generalizable across tables of varying sizes (AcaStat Software, 2003). The Cramér's *V* coefficient is also not affected by sample size and therefore significance levels will not be artificially inflated by large sample size (AcaStat Software, 2003; Healey, 2002). These analyses allowed for the discovery of any differences in the diagnostic practices reported in the Korean psychology and psychiatry journals.

The Cramér's *V* coefficient (*V*) is interpreted as a measure of the relative strength of an association between two variables and it ranges from 0 (no association) to 1.00

(perfect association) (AcaStat Software, 2003). Therefore, the closer the coefficient is to 1.00, the stronger the relationship (Gray, Streatfield, & McMurray, 1999). A limitation of the Cramér's *V* coefficient (*V*) is the difficulty of meaningful interpretations of values between 0.00 and 1.00 (Healey, 2002). The values can be interpreted only as a relative strength of association.

  Three sets of analyses regarding documentation of diagnostic practices and participant characteristics were completed. In the first set of analyses, overall similarities and differences in diagnostic practices and participant characteristics were examined between a Korean psychology journal (*KJCP*) and a Korean psychiatry journal (*JKNA*). The second set of analyses addressed similarities and differences between leading Korean and American psychology journals. This set of analyses compared a Korean psychology journal (*KJCP*), using data collected for this study, to a leading American journal (the *Journal of Clinical Child Psychology and Adolescent Psychology*; *JCCPAP* - formerly known as the *Journal of Child Clinical Psychology*; *JCCP*), using archival data (Hartley, 2003). The *JCCPAP* was selected as a comparison as Hartley (2003) identified it as having the highest impact factor based on the *Journal of Citation Reports* for journals that published at least 20 articles using participants where an AD/HD diagnosis was integral to the study. The third set of analyses addressed similarities and differences between leading Korean and American psychiatry journals. In this final set of analyses, data collected for this study on the Korean psychiatry journal (*JKNA*) were compared with archival data from a leading American psychiatry journal (the *Journal of the American Academy of Child and Adolescent Psychiatry; JAACAP*) (Hartley, 2003). The

JAACAP was selected for comparison as Hartley (2003) based upon its high impact factor and the number of studies using AD/HD participants (as above). Because this is an exploratory study, *p* values of between .01 and .10 are reported as indicating a trend to significance and *p* values less than .01 are regarded as significant.

<div align="center">Analyses for Korean Journals</div>

Demographics of AD/HD Samples

     Age. ANOVA procedures showed no significant differences between the journals in the mean ages of participants used for articles where mean age was reported, $F(1, 28) = .625$. Significant differences were not found between journals for either the mean minimum age, $F(1, 24) = .138$, or the mean maximum age, $F(1, 24) = 1.298$, respectively. However, a trend towards significance was found between the journals with regard to mean standard deviations reported by articles, $F(1, 25) = 5.443$, $p < .10$. The mean ages and standard deviations of AD/HD participants as well as the mean minimum and maximum ages of AD/HD participants are presented in Table 1.

Table 1

Comparison of Age Data Reported across Korean Journals: *KJCP* vs. *JKNA*

	Mean Age	
	KJCP	*JKNA*
Mean	9.1	9.6
n	13	16
SD	1.7	1.3
	Standard Deviations	
	KJCP	*JKNA*
Mean	1.5	2.7
n	12	14
SD	.6	1.6
	Minimum Age of Participants	
	KJCP	*JKNA*
Mean	6.9	7.0
n	13	12
SD	1.2	.7
	Maximum Age of Participants	
	KJCP	*JKNA*
Mean	11.3	12.2
n	13	12
SD	2.0	2.0

Note. There were 17 articles in *KJCP* and 20 articles in *JKNA*. Articles not reporting target data account for the smaller *n*'s listed above.

Gender. The ratios of male to female participants were approximately 18:1 and 5:1 in *KJCP* and *JKNA*, respectively. Additionally, using the ANOVA procedure, a trend towards significance was found between the journals in the mean number of female AD/HD participants, $F(1, 26) = 5.020$, $p < .10$. However, significant differences were not found in the mean number of male AD/HD participants, $F(1, 28) = .405$. The mean numbers of male and female participants are presented in Table 2.

Table 2

Comparison of Mean Number of Male and Female Participants`: *KJCP* vs. *JKNA*

	Males	
	KJCP	*JKNA*
Mean	23.3	27
n	13	15
SD	7.8	19.6

	Females	
	KJCP	*JKNA*
Mean	1.3	5.9
n	13	15
SD	2.5	7.0

Note. There were 17 articles in *KJCP* and 20 articles in *JKNA*. Articles not reporting gender data account for the smaller *n*'s listed above.

Types of Studies Reviewed

   Study type. Cramer's *V* analyses showed no significant differences between the journals with regard to the proportion of assessment or non-treatment studies, medication studies, behavioral studies (e.g., learning, skill, or psychoeducational), and combined studies (e.g., medication plus behavioral). Table 3 presents the overall percentages of types of studies reviewed within each journal.

Table 3

Types of Studies Reviewed: *KJCP* vs. *JKNA*

	KJCP (*n* = 17)	*JKNA* (*n* = 20)	*V*	*p*
Assessment studies	71%	85%		
Medication studies	12%	10%		
Behavioral studies	12%	0%	.267	.451
Combined studies	6%	5%		

Adherence to DSM Criteria

   DSM version used. Cramer's *V* analyses showed significant differences between

the journals in the proportion of studies that used different versions of the *DSM* for

diagnostic purposes. The percentages of studies that used versions of the *DSM* are

presented in Table 4.

Table 4

DSM Version Used: *KJCP* vs. *JKNA*

	KJCP (*n* = 17)	*JKNA* (*n* = 20)	*V*	*p*
DSM-III	0%	0%		
DSM-III-R	24%	25%		
DSM-IV or IV-TR	35%	65%		
More than one *DSM* used	0%	10%	.558	.009
Versions not mentioned	41%	0%		

Subtypes. Cramer's *V* was not computed because there were no articles reporting subtypes.

Adherence to age of onset criterion. No articles in *KJCP* and *JKNA* explicitly required a subject's impairment to be present prior to age seven.

Multiple setting and cutoff scores. Cramer's *V* analyses did not show significant differences between the journals both in the proportion of studies that mentioned an AD/HD subject's impairment should exist across multiple settings (e.g., home and school) and in the proportion of studies that established cutoff scores for level of impairment or specific inclusion criteria across multiple settings. The percentages of studies that did not mention (or require) that impairment should exist across multiple settings or establish cutoff scores across multiple settings are presented in Table 5.

Table 5

Multiple Settings Criterion Not Acknowledged or Required: *KJCP* vs. *JKNA*

	KJCP (*n* = 17)	*JKNA* (*n* = 20)	*V*	*p*
Multiple settings not acknowledged in text	59%	75%	.172	.295
Cutoff scores/criteria not used	65%	75%	.112	.495

Multiple informants used for diagnosis. Overall, results from the Cramer's *V* analyses indicated no significant differences between the journals in the proportion of

studies that included parents, teachers, both parents and teachers, and significant report

(e.g., cutoff scores) from both parents and teachers in the diagnostic process. Table 6

presents the overall percentages of studies within each journal that included parents,

teachers, or both parents and teachers in the diagnostic process as well as percentages of

studies that also required significant reports from both parents and teachers (e.g., used

cutoff scores).

Table 6

Informants Used for Diagnosis: *KJCP* vs. *JKNA*

	KJCP ($n = 17$)	*JKNA* ($n = 20$)	*V*	*p*
Parent	59%	60%	.012	.942
Teacher	47 %	30%	.175	.286
Parent and teacher	41%	30%	.117	.478
Significant report from both	29%	15%	.174	.289

Inclusionary Criteria

      Prior treatment. Cramer's *V* analyses did not show a significant difference

between the journals in the proportion of studies that reported the existence of any kind

of prior treatment (e.g., medication, behavioral, or combined medication and behavioral).

Specifically, no articles from *KJCP* and only 1 article from *JKNA* addressed participants'

prior treatment. Significant differences between the journals also were not found in the

proportion of studies that specified whether participants had prior medication treatment

before inclusion in the study. The percentages of studies that did not

address the existence of prior treatment or did not report participants' previous

medication treatment are presented in Table 7.

Table 7

Failure to Address Prior Treatment: *KJCP* vs. *JKNA*

	KJCP (*n* = 17)	*JKNA* (*n* = 20)	*V*	*p*
Prior treatment	100%	95%	.154	.350
Prior medication treatment	82%	55%	.304	.182

Comorbidity. Cramer's *V* analyses did not show any significant differences

between the journals in the proportion of studies that specified whether other dual

diagnoses were permitted or allowed (*V* = .090, *p* = .861). Specifically, *KJCP* and *JKNA*

allowed dual diagnoses in 11.8% and 10% of studies respectively. Cramer's *V* analyses

did not show significant differences between the journals in the proportion of studies that

reported specifically permitting conduct and oppositional disorders. Analyses were not

computed for anxiety and mood disorders because the proportions of studies that

permitted anxiety and mood disorders were the same (i.e., 0%). Table 8 presents the

percentages of studies that permitted specific comorbid diagnoses.

Table 8

Dual Diagnoses Allowed: *KJCP* vs. *JKNA*

	KJCP (*n* = 17)	*JKNA* (*n* = 20)	*V*	*p*
Conduct Disorder	6%	10%	.075	.647
Oppositional Disorder	0%	10%	.220	.180
Anxiety Disorder	0%	0%	NA	NA
Mood Disorder	0%	0%	NA	NA

Exclusionary Criteria

      Gross neurological impairment and IQ cutoff. Cramer's *V* analyses did not show significant differences between the journals in the proportion of studies that specifically excluded participants with gross neurological impairment. However, the journals exhibited a trend towards significance in the proportion of overall studies that reported excluding participants based on their level of intellectual functioning (e.g., IQ cutoff score used). The percentages of studies within each journal that excluded gross neurological impairment or used an IQ cutoff score are presented in Table 9.

Table 9

Exclusionary Criteria: *KJCP* vs. *JKNA*

	KJCP (n = 17)	*JKNA* (n = 20)	*V*	*p*
Neurological impairment	41%	50%	.088	.591
IQ cutoff used	65%	25%	.460	.020

Diagnostic Methods Used

    Establishment of AD/HD diagnosis. Cramer's *V* analyses showed a trend towards significance between the journals in the proportion of studies in which it was unclear whether researchers relied on a pre-existing diagnosis, confirmed a pre-existing diagnosis, newly diagnosed the participants, made new diagnoses for some participants and confirmed pre-existing diagnoses in others, or did not specify the assessment process. Overall, the psychology journal articles were more likely to include newly diagnosed AD/HD participants while the psychiatry articles were slightly more likely to include participants with pre-existing diagnoses. See Table 10.

Table 10

How AD/HD Diagnoses were Made: *KJCP* vs. *JKNA*

	KJCP (*n* = 17)	*JKNA* (*n* = 20)	V	p
Relied on pre-existing diagnosis	12%	25%		
Confirmed pre-existing diagnosis	29%	55%		
Made new diagnosis	53%	15%	.414	.096
Mixed diagnosis	6%	5%		
Did not specify	0%	0%		

Interviews and rating scales. Cramer's *V* analyses did not show significant differences between the journals in the proportion of studies that used parent interview, parent rating scales, teacher interview, and teacher rating scales. Of the studies that included parent interviews in the diagnostic process, approximately 29% and 25% of articles in the *KJCP* and *JKNA* reported involving one or both parents in the interview. While looking at the gender of the parent interviewed, it was found that all articles in *KJCP* and *JKNA* failed to specify with which parent the interview was administered. Table 11 presents percentages of the studies that included parent and teacher interviews and rating scales as part of the diagnostic process.

Table 11

Methods Using Parents and Teachers: *KJCP* vs. *JKNA*

		KJCP (*n* = 17)	*JKNA* (*n* = 20)	*V*	*p*
Interviews	Parent	29%	25%	.050	.763
	Teacher	0%	5%	.154	.350
Rating scales	Parent	41%	55%	.276	.419
	Teacher	47%	30%	.263	.279

Additional diagnostic methods used. Cramer's *V* analyses did not show significant differences between the journals in the proportion of studies that used child self-report, direct observation, and laboratory tests as part of the diagnostic process. Table 12 presents the percentages of studies that reported utilizing child self-report, direct observation, or laboratory tests in the process of making or confirming AD/HD diagnoses.

Table 12

Diagnostic Methods Used: *KJCP* vs. *JKNA*

	KJCP (*n* = 17)	*JKNA* (*n* = 20)	*V*	*p*
Child self-report	12%	5%	.224	.395
Direct observation	6%	20%	.206	.211
Laboratory tests	12%	15%	.047	.774

Clarity of diagnostic practices. Cramer's *V* analyses did not show significant differences between the journals in the proportion of studies in which diagnostic methods used by researchers were judged as unclear. Articles were judged unclear if researchers

did not specify methods used for establishing AD/HD diagnosis. For example, if

researchers stated that participants were recruited from the patient pool of other clinics or

hospitals and did not provide any information on how diagnosis was established, it was

judged as unclear. Table 13 presents the percentages of studies in which it was unclear

which diagnostic methods were used for AD/HD participants.

Table 13

Diagnostic Methods Judged as Unclear: *KJCP* vs. *JKNA*

	KJCP ($n = 17$)	*JKNA* ($n = 20$)	*V*	*p*
Unclear diagnostic methods	47%	45%	.021	.900

Drop-out rates, Replacement Behavior, and Social Validity

Due to the small number of treatment studies, statistical analyses were not

conducted. Specifically, there were only 8 treatment studies in *KJCP* and *JKNA*. Overall,

drop-out rates and manipulation check of compliance to treatment were ignored in 6 and

7 studies, respectively, across *KJCP* and *JKNA*. Also, studies in *KJCP* and *JKNA* rarely

developed replacement or adaptive behaviors. In addition, social validity checks were not

performed in any study.

Korean journals were compared to a leading American psychiatry journal (*the

Journal of American Academy of Child and Adolescent Psychiatry; JAACAP*), using

unpublished data (K. J. Armstrong, personal communication, June 13, 2005). Forty-two

treatment studies in *JAACAP* were analyzed by two undergraduate coders. Inter-rater

reliability between the two coders was .89. As shown in Korean journals, researchers in *JAACAP* rarely mentioned specific replacement behaviors for problematic AD/HD behaviors and never offered social validity data. However, it was found that over half of the studies in *JAACAP* mentioned drop-out rates and manipulation check of compliance to treatment, while these were rarely stated in Korean journals.

Analyses for Korean versus American Psychology Journals

Demographics of AD/HD Samples

       Age. ANOVA procedures showed no significant differences between the journals in the mean ages and the mean standard deviations of participants for articles where mean age and the mean standard deviations were reported, $F(1, 21) = 1.524$ and $F(1, 20) = 2.125$, respectively. Additionally, significant differences were not found between journals for both the mean minimum age, $F(1, 20) = .131$, and the mean maximum age, $F(1, 19) = 2.860$, respectively. See Table 14.

Table 14

Comparison of Age Data Reported across Psychology Journals: *KJCP* vs. *JCCPAP*

	Mean Age	
	KJCP	*JCCPAP*
Mean	9.1	10.2
n	13	9
SD	1.7	2.5
	Standard Deviations	
	KJCP	*JCCPAP*
Mean	1.5	2.7
n	12	9
SD	.6	2.8
	Minimum Age of Participants	
	KJCP	*JCCPAP*
Mean	6.8	7.1
n	13	8
SD	1.2	2.6
	Maximum Age of Participants	
	KJCP	*JCCPAP*
Mean	11.3	13.2
n	13	7
SD	2.0	3.0

Note. There were 17 articles in *KJCP* and 21 articles in *JCCPAP*. Articles not reporting target data account for the smaller *n*'s listed above.

Gender. The ratios of male to female participants were approximately 18:1 and 10:1 in *KJCP* and *JCCPAP*, respectively. Using the ANOVA procedure, a trend towards significance was found between the journals in the mean number of female AD/HD participants, $F(1, 32) = 4.490$ $p < .10$. A trend towards significance was also found in the mean number of male AD/HD participants, $F(1, 32) = 4.963$, $p < .10$. The mean numbers of male and female participants are presented in Table 15.

Table 15

Comparison of Mean Number of Male and Female Participants: *KJCP* vs. *JCCPAP*

	Males	
	KJCP	*JCCPAP*
Mean	23.3	44.6
n	13	20
SD	7.8	33.6

	Females	
	KJCP	*JCCPAP*
Mean	1.3	4.6
n	13	20
SD	2.5	5.2

Note. There were 17 articles in *KJCP* and 21 articles in *JCCPAP*. Articles not reporting target data account for the smaller *n*'s listed above.

Types of Studies Reviewed

      Study type. Cramer's *V* analyses showed no significant differences between the journals with regard to the proportion of assessment or non-treatment studies, medication studies, behavioral studies (e.g., learning, skill, or psychoeducational), and combined studies (e.g., medication plus behavioral). Table 16 presents the overall percentages of types of studies reviewed within each journal.

Table16

Types of Studies Reviewed: *KJCP* vs. *JCCPAP*

	KJCP (*n* = 17)	JCCPAP (*n* = 21)	V	p
Assessment studies	71%	71%		
Medication studies	12%	24%		
Behavioral studies	12%	0%	.292	.357
Combined studies	6%	5%		

Adherence to DSM Criteria

DSM version used. Cramer's *V* analyses showed a trend toward significance between the journals in the proportion of studies that used different versions of the *DSM* for diagnostic purposes. The percentages of studies that used versions of the *DSM* are presented in Table 17.

Table 17

DSM Version Used: *KJCP* vs. *JCCPAP*

	KJCP (*n* = 17)	JCCPAP (*n* = 21)	V	p
DSM-III	0%	5%		
DSM-III-R	24%	62%		
DSM-IV or IV-TR	35%	24%		
More than one *DSM* used	0%	3%	.539	.026
Versions not mentioned	41%	21%		

Subtypes. Cramer's *V* showed significant differences between the journals in the proportion of studies that used subtypes from the *DSM-IV* (1994) and *DSM-IV-TR* (2000). The American journal *JCCPAP* was more likely to provide subtype information when using the most recent *DSM*s. There was only 1 study overall reporting subtypes based on the *DSM-III* (1980). The percentages of studies that specified AD/HD subtypes are presented in Table 18.

Table 18

Subtypes Specified (According to *DSM* Version): *KJCP* vs. *JCCPAP*

		KJCP (*n* = 17)	*JCCPAP* (*n* = 21)	*V*	*p*
Subtypes specified	*DSM-IV* and *IV-TR*	0% *n* = 6	80% *n* = 5	.828	.006
	DSM-III	0% *n* = 0	100% *n* = 1	NA	*ns*

Note. There were 17 articles in *KJCP* and 21 articles in *JCCPAP*. Articles not reporting target data account for the smaller *n*'s listed above.

Adherence to age of onset criterion. Cramer's *V* analyses showed a trend towards significance between the journals in the proportion of studies that explicitly required a participant's impairment to be present prior to age seven. Table 19 presents the percentages of studies that failed to adhere to the age of onset criterion.

Table 19

Failure to Adhere to Age of Onset Criterion: *KJCP* vs. *JCCPAP*

	KJCP (*n* = 17)	*JCCPAP* (*n* =21)	*V*	*p*
Age of onset	100%	71%	.390	.016

Multiple settings and cutoff scores. Cramer's *V* analyses did not show significant differences between the journals both in the proportion of studies that mentioned an AD/HD subject's impairment should exist across multiple settings (e.g., home and school) and in the proportion of studies that established cutoff scores for either level of impairment or specific inclusion criteria across multiple settings. The percentages of studies that failed to require or even mention that impairment should exist across multiple settings or establish cutoff scores across multiple settings are presented in Table 20.

Table 20

Multiple Settings Criterion Not Acknowledged or Required: *KJCP* vs. *JCCPAP*

	KJCP (*n* = 17)	*JCCPAP* (*n* = 21)	*V*	*p*
Multiple settings not acknowledged in text	59%	81%	.243	.135
Cutoff scores/criteria not used	65%	71%	.072	.658

Multiple informants used for diagnosis. Cramer's *V* analyses showed significant

differences between the journals in the proportion of studies that included parents.

However, results form the Cramer's *V* analyses indicated no significant differences

between the journals in the proportion of studies that included teachers, both parents and

teachers, and significant report (e.g., cutoff scores) from both parents and teachers in the

diagnostic process. Table 21 presents the overall percentages of studies within each

journal that included parents, teachers, or both parents and teachers in the diagnostic

process as well as percentages of studies that also required significant reports from both

parents and teachers (e.g., used cutoff scores).

Table 21

Informants Used for Diagnosis: *KJCP* vs. *JCCPAP*

	KJCP (*n* = 17)	*JCCPAP* (*n* = 21)	*V*	*p*
Parent	59%	100%	.528	.001
Teacher	47%	67%	.197	.224
Parent and teacher	41%	62%	.206	.203
Significant report from both	29%	19%	.121	.455

Inclusionary Criteria

Prior treatment. Cramer's *V* analyses showed a significant difference between the

journals in the proportion of studies that reported the existence of prior treatment.

Specifically, no articles from *KJCP* addressed participants' prior treatment. Significant

differences between the journals also were found in the proportion of studies that

specified whether participants had prior medication treatment before inclusion in the study. The percentages of studies that did not address the existence of prior treatment or did not report participants' previous medication treatment are presented in Table 22.

Table 22

Failure to Address Prior Treatment: *KJCP* vs. *JCCPAP*

	KJCP ($n = 17$)	*JCCPAP* ($n = 21$)	*V*	*p*
Prior treatment	100%	29%	1.000	.000
Prior medication treatment	82%	38%	.677	.002

Comorbidity. Cramer's *V* analyses showed significant differences between the journals in the proportion of studies that specified whether more than one diagnosis was permitted or allowed ($V = .700$, $p = .000$). Specifically, *KJCP* and *JCCPAP* allowed dual diagnoses in 11.8% and 81% of coded studies, respectively. For example, Cramer's *V* analyses showed significant differences between the journals in the proportion of studies that reported specifically permitting conduct and oppositional disorders. However, significant differences were not found between the journals in studies that reported specifically permitting anxiety disorders and mood disorders. Table 23 presents the percentages of studies that permitted specific comorbid diagnoses.

Table 23

Dual Diagnoses Allowed: *KJCP* vs. *JCCPAP*

	KJCP (*n* = 17)	*JCCPAP* (*n* = 21)	*V*	*p*
Conduct Disorder	6%	62%	.577	.000
Oppositional Disorder	0%	71%	.727	.000
Anxiety Disorder	0%	10%	.212	.191
Mood Disorder	0%	10%	.212	.191

Exclusionary Criteria

     Gross neurological impairment and IQ cutoff. Cramer's V analyses did not show significant differences between the journals in the proportion of studies that specifically excluded participants with gross neurological impairment and participants based on their level of intellectual functioning (e.g., IQ cutoff score used). The percentages of studies within each journal that excluded gross neurological impairment or used an IQ cutoff score are presented in Table 24.

Table 24

Exclusionary Criteria: *KJCP* vs. *JCCPAP*

	KJCP (*n* = 17)	*JCCPAP* (*n* = 21)	*V*	*p*
Neurological impairment	41%	38%	.031	.847
IQ cutoff used	65%	71%	.212	.425

Diagnostic Methods Used

  Establishment of AD/HD diagnosis. Cramer's *V* analyses showed significant

differences between the journals in the proportion of studies in which it was unclear

whether researchers did any of the following: relied on a pre-existing diagnosis,

confirmed a pre-existing diagnosis, newly diagnosed the participants, used mixed

procedures (e.g., subjects newly diagnosed and confirmed pre-existing diagnosis), or did

not specify the assessment process. Table 25 presents the percentages of studies that

relied on a pre-existing diagnosis, confirmed a pre-existing diagnosis, newly diagnosed

the participants, used a mixture of diagnostic procedures, or did not specify the

assessment process.

Table 25

How AD/HD Diagnoses were Made: *KJCP* vs. *JCCPAP*

	KJCP (*n* = 17)	*JCCPAP* (*n* = 21)	*V*	*p*
Relied on pre-existing	12%	14%		
Confirmed pre-existing	29%	38%		
Made new diagnosis	53%	5%	.608	.007
Mixed diagnosis	6%	14%		
Did not specify	0%	29%		

  Interviews and rating scales. Cramer's *V* analyses showed significant differences

between the journals in the proportion of studies that used parent interview. However,

significant differences were not found between the journals in the proportion of studies

that used parent rating scales, teacher interview, and teacher rating scales. Of the studies

that included parent interviews in the diagnostic process, approximately 29% and 76% of

articles in the *KJCP* and *JCCPAP* reported involving one or both parents in the interview.

While looking at the gender of the parent interviewed, it was found that *KJCP* failed to

specify which parent was administered, the interview while 14% of articles in the

JCCPAP specifically reported that the participants' mothers were interviewed. Table 26

presents percentages of the studies that included parent and teacher interviews and rating

scales as part of the diagnostic process.

Table 26

Methods Using Parents and Teachers: *KJCP* vs. *JCCPAP*

		KJCP ($n = 17$)	*JCCPAP* ($n = 21$)	*V*	*p*
Interviews	Parent	29%	76%	.468	.004
	Teacher	0%	5%	.148	.362
Rating scales	Parent	41%	62%	.342	.218
	Teacher	47%	57%	.296	.342

Additional diagnostic methods used. Cramer's *V* analyses did not show significant

differences between the journals in the proportion of studies that used child self-report,

direct observation, and laboratory tests as part of the diagnostic process. Table 27

presents percentages of studies that reported including child self-report, direct

observation, or laboratory tests in the process of making or confirming AD/HD diagnoses.

Table 27

Diagnostic Methods Used: *KJCP* vs. *JCCPAP*

	KJCP (*n* = 17)	*JCCPAP* (*n* = 21)	*V*	*p*
Child self-report	12%	38%	.350	.198
Direct observation	6%	14%	.136	.401
Laboratory tests	12%	5%	.129	.426

Clarity of diagnostic practices. Cramer's V analyses showed significant differences between the journals in the proportion of studies in which diagnostic methods used by researchers were judged as unclear. Table 28 presents the percentages of studies in which it was unclear which diagnostic methods were used for AD/HD participants.

Table 28

Diagnostic Methods Judged as Unclear: *KJCP* vs. *JCCPAP*

	KJCP (*n* = 17)	*JCCPAP* (*n* = 21)	*V*	*p*
Unclear diagnostic methods	47%	0%	.574	.000

Analyses for Korean versus American Psychiatry Journals

Demographics of AD/HD Samples

Age. ANOVA procedures showed no significant differences between the journals in the mean ages of participants used for articles where mean age and the mean standard deviations were reported, $F(1, 57) = 2.727$, and $F(1, 45) = 2.113$, respectively. Significant

differences were not found between journals for both the mean minimum age, $F(1, 67) = 1.334$, and the mean maximum age, $F(1, 67) = .371$, respectively. The mean ages and standard deviations of AD/HD participants as well as the mean minimum and maximum ages of AD/HD participants are presented in Table 29.

Table 29

Comparison of Age Data Reported across Psychiatry Journals: *JKNA* vs. *JAACAP*

	Mean Age	
	JKNA	*JAACAP*
Mean	9.6	10.4
n	16	42
SD	1.3	1.9
	Standard Deviations	
	JKNA	*JAACAP*
Mean	2.7	2.2
n	14	32
SD	1.6	.7
	Minimum Age of Participants	
	JKNA	*JAACAP*
Mean	7.0	6.4
n	12	56
SD	.7	1.8
	Maximum Age of Participants	
	JKNA	*JAACAP*
Mean	12.2	13.1
n	12	56
SD	2.0	3.3

Note. There were 20 articles in *JKNA* and 124 articles in *JAACAP*. Articles not reporting target data account for the smaller *n*'s listed above.

Gender. The ratios of male to female participants were approximately 5:1 and 4:1 in *JKNA* and *JAACAP*, respectively. Using the ANOVA procedure, a trend toward significance was found in the mean number of male AD/HD participants, $F(1, 118) = 4.539$, $p < .10$. However, significant differences were not found in the mean number of female AD/HD participants, $F(1, 188) = 1.942$. See Table 30.

Table 30

Comparison of Mean Number of Male and Female Participants: *JKNA* vs. *JAACAP*

| | Males | |
	JKNA	*JAACAP*
Mean	27	72.4
n	15	104
SD	19.6	81.9

| | Females | |
	JKNA	*JAACAP*
Mean	5.9	17.1
n	15	104
SD	7.0	30.7

Note. There were 20 articles in *JKNA* and 124 articles in *JAACAP*. Articles not reporting target data account for the smaller *n*'s listed above.

Types of Studies Reviewed

Study type. Cramer's *V* analyses showed a trend toward significance between the journals with regard to the proportion of assessment or non-treatment studies, medication studies, behavioral studies (e.g., learning, skill, or psychoeducational), and combined studies (e.g., medication plus behavioral). Table 31 presents the overall percentages of types of studies reviewed within each journal.

Table 31

Types of Studies Reviewed: *JKNA* vs. *JAACAP*

	JKNA (n = 20)	JAACAP (n = 124)	V	p
Assessment studies	85%	68%		
Medication studies	10%	32%		
Behavioral studies	0%	1%	.262	.020
Combined studies	5%	0%		

Adherence to DSM Criteria

   DSM version used. Cramer's *V* analyses showed a trend toward significance

between the journals in the proportion of studies that used different versions of the *DSM*

for diagnostic purposes. The percentages of studies that used versions of the *DSM* are

presented in Table 32.

Table 32

DSM Version Used: *JKNA* vs. *JAACAP*

	JKNA (n = 20)	JAACAP (n = 124)	V	p
DSM-III	0%	2%		
DSM-III-R	25%	61%		
DSM-IV or IV-TR	65%	29%		
More than one *DSM* used	10%	3%	.309	.017
Versions not mentioned	0%	3%		

Subtypes. Cramer's *V* showed significant differences between the journals in the proportion of studies using *DSM-IV* (1994) or *IV-TR* (2000) that also reported subtype information. However, Cramer's *V* was not computed for *DSM-III* (1980) since *JKNA* did not have any articles using *DSM-III*. The percentages of studies that identified AD/HD subtypes for AD/HD participants are presented in Table 33.

Table 33

Subtypes Specified (According to *DSM* Version): *JKNA* vs. *JAACAP*

		JKNA (*n* = 20)	*JAACAP* (*n* = 124)	*V*	*p*
Subtypes used	*DSM-IV* or *IV-TR*	0% *n* = 13	83% *n* = 36	.755	.000
	DSM-III	0% *n* = 0	67% *n* = 3	NA	*ns*

Note. There were 20 articles in *JKNA* and 124 articles in *JAACAP*. Articles not reporting target data account for the smaller *n*'s listed above.

Adherence to age of onset criterion. Cramer's *V* analyses did not show significant differences between the journals in the proportion of studies that explicitly required a subject's impairment to be present prior to age seven. Note that there were 0 cases of Korean articles stating the use of this criterion while 11% of the American psychiatry articles made mention of the criterion. Table 34 presents the percentages of studies that did not adhere to the age of onset criterion.

Table 34

Failure to Adhere to Age of Onset Criterion: *JKNA* vs. *JAACAP*

	JKNA (*n* = 20)	*JAACAP* (*n* =124)	*V*	*p*
Age of onset	100%	85% (*n* = 119)	.157	.317

Note. There were 20 articles in *JKNA* and 124 articles in *JAACAP*. Five articles in *JAACAP* reported using participants who were less than 7 years of age - those articles were excluded from this analysis.

Multiple settings and cutoff scores. Cramer's *V* analyses did not show significant differences between the journals either in the proportion of studies that mentioned an AD/HD subject's impairment should exist across multiple settings (e.g., home and school) or in the proportion of studies that established cutoff scores for level of impairment or specific inclusion criteria across multiple settings. The percentages of studies that did not mention (or require) that impairment should exist across multiple settings or establish cutoff scores across multiple settings are presented in Table 35.

Table 35

Multiple Settings Criterion Not Acknowledged or Required: *JKNA* vs. *JAACAP*

	JKNA (*n* = 20)	*JAACAP* (*n* = 124)	*V*	*p*
Multiple settings not acknowledged in text	75%	76%	.007	.938
Cutoff scores/criteria not used	75%	69%	.043	.609

Multiple informants used for diagnosis. The results from the Cramer's *V* analyses indicated significant differences between the journals in the proportion of studies that included parents in the diagnostic process. Trends toward significance were found between the journals in the proportion of studies that included teacher and both parent and teacher in the diagnostic process. However, significant differences were not found between the journals in the proportion of studies that required significant reports from both parents and teachers. Table 36 presents the overall percentages of studies within each journal that included parents, teachers, or both parents and teachers in the diagnostic process as well as percentages of studies that also required significant reports from both parents and teachers (e.g., used cutoff scores).

Table 36

Informants Used for Diagnosis: *JKNA* vs. *JAACAP*

	JKNA ($n = 20$)	*JAACAP* ($n = 124$)	*V*	*p*
Parent	60%	92%	.334	.000
Teacher	30%	54%	.166	.046
Parent and teacher	30%	52%	.150	.073
Significant report from both	15%	33%	.136	.104

Inclusionary Criteria

Prior treatment. Cramer's *V* analyses showed significant differences between the journals in the proportion of studies that reported the existence of prior treatment and that specified whether participants had prior medication treatment before inclusion in the

study. The percentages of studies that did not address the existence of prior treatment or did not report participants' previous medication treatment are presented in Table 37.

Table 37

Failure to Address Prior Treatment: *JKNA* vs. *JAACAP*

	JKNA (*n* = 20)	*JAACAP* (*n* = 124)	*V*	*p*
Prior treatment	95%	44%	.971	.000
Prior medication treatment	55%	46%	.530	.000

Comorbidity. Cramer's *V* analyses showed significant differences between the journals in the proportion of studies that specified whether other psychiatric diagnoses were permitted (*V* = .524, *p* < .01). Specifically, *JKNA* and *JAACAP* allowed dual diagnoses in 10% and 79% of studies respectively. Cramer's *V* analyses showed significant differences between the journals in the proportion of studies that reported specifically permitting conduct, oppositional, anxiety, and mood disorders. Table 38 presents the percentages of studies that permitted specific comorbid diagnoses.

Table 38

Dual Diagnoses Allowed: *JKNA* vs. *JAACAP*

	JKNA (*n* = 20)	*JAACAP* (*n* = 124)	*V*	*p*
Conduct Disorder	10%	55%	.310	.000
Oppositional Disorder	10%	51%	.284	.001
Anxiety Disorder	0%	48%	.335	.000
Mood Disorder	0%	38%	.280	.001

Exclusionary Criteria

     Gross neurological impairment and IQ cutoff. Cramer's *V* analyses indicated a trend toward significance between the journals in the proportion of studies that mentioned specifically excluding participants with gross neurological impairment. The journals exhibited significant differences in the proportion of overall studies that reported excluding participants based on their level of intellectual functioning (i.e., IQ cutoff score used). The percentages of studies within each journal that excluded gross neurological impairment or used an IQ cutoff score are presented in Table 39.

Table 39

Exclusionary Criteria: *JKNA* vs. *JAACAP*

	JKNA (*n* = 20)	*JAACAP* (*n* = 247)	*V*	*p*
Neurological impairment	50%	23%	.207	.013
IQ cutoff used	25%	52%	.300	.002

Diagnostic Methods Used

  Establishment of AD/HD diagnosis. Cramer's *V* analyses showed significant

differences between the journals in the proportion of studies in which it was unclear

whether researchers did any of the following: relied on a pre-existing diagnosis,

confirmed a pre-existing diagnosis, newly diagnosed the participants, used mixed

diagnostic procedures (e.g., subjects newly diagnosed and confirmed pre-existing

diagnosis), or did not specify the assessment process. The largest difference is that 0% of

the Korean psychiatry journal articles failed to specify how old versus new diagnoses

were handled while almost 48% of the American psychiatry journal articles left it unclear

as to whether pre-existing diagnoses were either used or confirmed, and whether new

diagnoses were being provided for participants. Table 40 presents the percentages of

studies that relied on a pre-existing diagnosis, confirmed a pre-existing diagnosis, newly

diagnosed the participants, used a mixture of diagnostic procedures, or did not specify the

assessment process.

Table 40

How AD/HD Diagnoses were Made: *JKNA* vs. *JAACAP*

	JKNA (*n* = 20)	*JAACAP* (*n* = 124)	*V*	*p*
Relied on pre-existing diagnosis	25%	9%		
Confirmed pre-existing diagnosis	55%	36%		
Made new diagnosis	15%	2%	.410	.000
Mixed diagnosis	5%	7%		
Did not specify	0%	48%		

Interviews and rating scales. Cramer's *V* analyses showed significant differences between the journals in the proportion of studies that used parent interviews. However, significant differences were not found between the journals in the proportion of studies that used teacher interviews, parent rating scales, and teacher rating scales in the diagnostic process. Of the studies that included parent interviews in the diagnostic process, approximately 25% and 76% of articles in the *JKNA* and *JAACAP* reported involving one or both parents in the interview. While looking at the gender of the parent interviewed, it was found that all articles in the *JKNA* failed to specify with which parent the interview was administered and that only 4% of articles in the *JAACAP* reported specifically reported additional information about which parent (i.e., mother and/or father) was interviewed. Table 41 presents percentages of the studies that included parent and teacher interviews and rating scales as part of the diagnostic process.

Table 41

Methods Using Parents and Teachers: *JKNA* vs. *JAACAP*

		JKNA (*n* = 20)	*JAACAP* (*n* = 124)	*V*	*p*
Interviews	Parent	25%	76%	.379	.000
	Teacher	5%	9%	.048	.561
Rating scales	Parent	55%	48%	.185	.293
	Teacher	30%	44%	.211	.171

Additional diagnostic methods used. Cramer's *V* analyses showed significant differences between the journals in the proportion of studies that used child self-report. Trends toward significance were found between the journals in the proportion of studies that used direct observation and laboratory tests in the diagnostic process. Table 42 presents percentages of studies that reported including child self-report, direct observation, or laboratory tests in the process of making or confirming AD/HD diagnoses.

Table 42

Diagnostic Methods Used: *JKNA* vs. *JAACAP*

	JKNA (*n* = 20)	*JAACAP* (*n* = 124)	*V*	*p*
Child self-report	5%	49%	.368	.000
Direct observation	20%	6%	.187	.025
Laboratory tests	15%	4%	.145	.081

Clarity of diagnostic practices. Cramer's *V* analyses showed significant differences between the journals in the proportion of studies in which diagnostic methods

used by researchers were judged as unclear. Table 43 presents the percentages of studies

in which it was unclear which diagnostic methods were used for AD/HD participants.

Table 43

Diagnostic Methods Judged as Unclear: *JKNA* vs. *JAACAP*

	JKNA (*n* = 20)	*JAACAP* (*n* = 124)	*V*	*p*
Unclear diagnostic methods	45%	10%	.346	.000

CHAPTER IV

DISCUSSION

The purpose of the study was to provide an empirical analysis of AD/HD
diagnostic and sampling practices in a sample of two Korean high impact journals with
psychological and psychiatric emphases and to compare Korean journals to leading
American journals, using archival data (Hartley, 2003). As expected, both consistencies
and inconsistencies in reporting diagnostic procedures were found across two Korean
journals. Overall, articles in Korean journals did not typically document adherence to
DSM diagnostic criteria as well as studies in American journals. Further, most articles
neglected to provide important information regarding participant selection procedures.

The discussion below focuses on similarities and differences between each journal
in adherence to *DSM* criteria, participant selection procedures and diagnostic practices
reported in the target journals, and the representativeness of reported samples.
Additionally, limitations of the current study are provided and recommendations are
made regarding documentation and sampling practices in order to increase the utility of
AD/HD research literature.

Demographics of AD/HD Sample

As expected, a disproportionately large number of male participants were used compared to female participants. Ratios of 18:1, 5:1, 10:1 and 4:1 were obtained in the Korean psychology journal, Korean psychiatry journal, American psychology journal, and American psychiatry journal, respectively. The psychology journals (18:1 and 10:1) showed greater disparity than the psychiatry journals (5:1 and 4:1), whose ratios were more similar to the ratio of 6:1 expected by the *DSM-IV-TR* (2000). This may be related to the fact that, typically, psychologists use smaller numbers of participants and, when doing statistical comparisons, psychologists may be attempting to control for anticipated gender differences by including only male participants in their cells. It was found that the mean number of AD/HD participants in the Korean psychology and American psychology journals were 23.8 and 53.4, respectively while psychiatry journals are likely to use more participants (67.2 in the Korean psychiatry journal and 91.5 in the American psychiatry journal). However, the more extreme male to female ratio of 18:1 observed in the Korean psychology journal may reflect a more significant exclusion of female participants.

Types of Studies Reviewed

The majority of psychiatry articles from both the Korean and American psychiatry journals were non-treatment studies. There was a trend toward significance in that the Korean psychiatry journal articles were 85% non-treatment versus only 68% of the American psychiatry journal articles. Among treatment studies in both journals,

medication treatments were far more frequently studied than other treatment modalities (i.e., behavioral and combined studies). This may be related to both journals targeting the psychiatry discipline. However, interestingly, the proportion of medication studies in the Korean psychiatry journal was significantly lower than the American psychiatry journal. There is no obvious explanation for this observation. It is possible that the Korean psychiatry journal may be more willing to publish non-medication treatment studies, or the Korean research psychologists writing up non-pharmacological treatment findings may have fewer publication outlets.

<div align="center">Adherence to DSM Criteria</div>

DSM versions used

Korean journals most frequently used a combination of the *DSM-IV* (1994) and/or *DSM-IV-TR* (2000) criteria while the American journals utilized *DSM-III-R* (1987) most frequently. This may be explained by the difference between the time frames of the journal articles published. In Korea, AD/HD has been studied more and more frequently since the early 1990s but, before then, research on AD/HD was rarely conducted. For example, the Korean journal data showed that many articles were published from the late 1990s to the early 2000s while there were many articles published before the late 1990s in the American journals.

It should be noted that many articles in psychology journals did not mention which *DSM* version they used for AD/HD diagnosis while psychiatry journals rarely failed to address the *DSM* version they utilized. Only 0% and 3% of articles in the

Korean and American psychiatry journals failed to mention which *DSM* version they used. However, 41% and 21% of articles in Korean and American psychology journals failed to mention which version they used. It is important to provide the exact information about the *DSM* version used, especially for AD/HD diagnosis, because there have been several significant changes in the diagnostic criteria. For example, three subtypes of *attention-deficit disorder (ADD) with hyperactivity (ADD/H)* and *ADD without hyperactivity (ADD/WO)* were included in *DSM-III* (1980), but *ADD/WO* was removed in *DSM-III-R* (1987). Then, with the publication of *DSM-IV*, subtypes were once again included with different categories and these subtypes are retained in *DSM-IV-TR* (2000): *a predominately inattentive type (AD/HD-I), a hyperactivity-impulsivity type (AD/HD-HI), and a combined type (AD/HD-C).* Note that *ICD* criteria were never reported as being used for research published in any of the reviewed journals.

Use of subtypes

It was found that Korean journals ignored information on AD/HD subtypes in their participant pools. In the Korean psychology and Korean psychiatry journals, studies relying on the *DSM-IV* (1994) and *DSM-IV-TR* (2000) reported using subtypes in 0% of their articles while American psychology and American psychiatry journals reported subtypes used in 80% and 83% of studies relying on the *DSM-IV* (1994) and *DSM-IV-TR* (2000). This is a potentially important finding as different subtypes include different symptoms. For example, among three subtypes in *DSM-IV* (1994) and *DSM-IV-TR* (2000), mentioned previously, *AD/HD-I* has different characteristics from those of

AD/HD-HI. Therefore, if researchers do not specify subtypes of participants they used, it is almost impossible for readers, other clinicians or researchers, to get the precise information about participants and the generalizability of reported findings to one's own clinical population.

Adherence to age of onset criterion

The results of this study showed that the age of onset criterion did not appear to be applied strictly in the published studies. However, American journals were relatively better regarding the age of onset criterion. In American psychology and psychiatry journals, 71% and 85% of studies failed to report using the age of onset criterion. Compared to American journals, both Korean psychology and psychiatry journals completely ignored this criterion with 0% of articles reporting it.

Multiple informants

Researchers are more likely to use parents as an informant than teachers. Interestingly, even though researchers often used both parental and teacher reports, they did not typically require significant reports from both. A range of 30%-62% of articles reported using reports from both parent and teacher. However, less than 30% of articles required significant reports from both parent and teacher. The American psychiatry journal (33%) appeared to most often require significant reports from both while the Korean psychiatry journal (15%) least likely includes significant parental and teacher reports. Because there is no definitive diagnostic test for AD/HD (Sangare, 2000), researchers must rely on reports from those who have observed the child (e.g., parents

and teachers) in order to make an AD/HD diagnosis accurately. Moreover, to obtain

precise information in different settings, significant reports from multiple informants are

critical. These results suggest a major failure in documenting the presence of impairment

in more than 1 setting as required by the *DSM* (APA, 1987; 1994; 2000).

Even though Korean and American journals had similar patterns in their use of

multiple informants, there were some interesting differences. For example, only 58% and

60% of articles in Korean psychology and psychiatry journals documented using

information from parents in making the AD/HD diagnosis for research participants. These

proportions are not high enough considering that parents should be an important

information resource for AD/HD diagnosis. This leaves a question regarding how Korean

researchers could diagnose AD/HD without information from parents in approximately

40% of articles. This may be an artifact of the finding that almost 50% of articles in both

Korean journals were unclear about their diagnosis methods, that is, it is uncertain if

researchers did not use parent information for AD/HD diagnosis or simply did not report

using it. Either way, it is important for researchers to document how they are establishing

diagnoses like AD/HD that rely so heavily on the report of significant informants like

teachers and parents.

<div align="center">Inclusionary Criteria</div>

Prior treatment

None of articles in Korean psychology journal reported whether research

participants had received prior treatment of any kind while 71 % of the articles in the

American psychology journal did. Also, the American psychology journal more often addressed research participants' exposure to prior medication treatment (62%). The Korean psychology journal, however, failed to address prior medication treatment (82%) in over half of published studies. Dawkins (2004) suggested that the overall lack of attention to prior treatment and prior medication treatment may be related to the relatively high number of assessment studies published (i.e., researchers weren't concerned about treatment interaction effects if they weren't evaluating a treatment themselves). However, the American psychology journal showed the same percentage of assessment studies as the Korean psychology journal (both 71%) and yet the Korean journal still had a significantly lower proportion of studies reporting on their participants' prior treatment overall and prior medication treatment in particular.

Comorbidity

The present study found that Korean journals and American journals showed significant differences in clarifying how comorbid diagnoses were handled. Only a small proportion of articles in Korean journals reported use of participants dually diagnosed with an externalizing disorder such as conduct disorder or oppositional disorder. The Korean journals reported no use of AD/HD participants with comorbid internalizing disorders such as anxiety or mood disorders. However, over 50% of studies in the American journals reported using participants with AD/HD and another externalizing disorder and internalizing disorders were explicitly allowed in some of the articles. According to Bird, Gould, and Staghezza (1993), approximately 63% of children have

two or more disorders diagnosed by *DSM-III* (1987). More specifically, AD/HD

diagnoses have a long history of high comorbidity rates, especially for conduct or

oppositional disorder (APA, 1987; 1994; 2000). For example, Bird et al. (1993) found

that 20 to 50% of children with AD/HD may also have severe problems with anxiety or

depression. Therefore, it is noted that researchers should report whether they allow dual

diagnoses and, if so, which diagnoses they observed in their participants.

When considering that Korean journals rarely reported on dual diagnoses in their

research, it is also important to note that there are significant differences in the prevalence

rates of various disorders in Korea versus the United States. Generally, the American

prevalence rate of conduct disorder has been reported from less than 1% to more than

10% and rates of 2%-16% have been reported for oppositional disorder, depending on the

nature of the population sample and methods of ascertainment (*DSM-IV-TR*, 2000). These

rates are not significantly different from the rates of conduct (3.8%) and oppositional

disorder (4.2%) in Korea (Cho & Shin, 1994). However, Cho and Shin (1994) also

studied the prevalence of comorbidity within disruptive behavior disorders and found that

only 3.4% and 13.6% of children with AD/HD were dually diagnosed with conduct and

oppositional disorders, respectively. In the United States, there are much higher levels of

comorbidity with Conduct Disorder and Oppositional Defiant Disorder. The *DSM-IV-TR*

(APA, 2000) reports that almost half of AD/HD children also carry diagnoses of Conduct

Disorder or Oppositional Defiant Disorder. Low comorbidity prevalence rates in Korea

may have led researchers to assume that it is reasonable not to allow dual diagnosis with

conduct or oppositional disorder. Also, it is still possible that researchers ignored

reporting whether they used research participants with a diagnosis of AD/HD only or if any dual diagnosis was allowed.

Exclusionary Criteria

Gross neurological impairment and IQ cutoff

Among Korean journals, the psychology journal (65%) appeared to more frequently exclude participants based on their level of intellectual functioning (e.g., IQ cutoff score used) than did the psychiatry journal (25%). Also, the Korean and American psychology journals showed similar proportions of articles that used IQ cutoff scores for AD/HD diagnosis (65% and 71%, respectively). This may be because psychologists, more typically trained in psychometrics, presumably have better access to IQ data than psychiatrists. However, interesting findings were obtained in comparing the Korean and American psychiatry journals. American psychiatry journals appeared to more frequently use IQ cutoff scores (52%) and were less likely to exclude gross neurological impairment (23%). This may reflect better access in the United States to psychological test data than in Korean medical facilities.

Diagnostic Methods Used

Establishment of AD/HD diagnosis

The Korean psychology journal researchers appeared to more frequently make a brand new diagnosis for participants (53%) compared to researchers in the Korean psychiatry (15%), the American psychology (5%), and the American psychiatry journals (2%). These differences may have been caused by the different services that Korean

psychiatrists and psychologists are engaged in within their institutions. Generally, psychologists in Korea are more likely to work as researchers or faculty members even though more psychologists have opened treatment clinics recently. Many Korean psychiatrists, however, engage in examination and treatment of patients as well as research and teaching. Therefore, Korean psychologists do not have as many chances to utilize participants recruited from the patient pool of clinics or hospitals since they do not have as good access to them as psychiatrists.

Also, it was found that many articles in American journals failed to explicitly state how the AD/HD diagnosis was established for study participants. In American psychology and psychiatry journals, 29% and 48% articles did not specify how they made an AD/HD diagnosis. Relying on a pre-existing diagnosis, with or without confirmation, and making a new diagnosis may affect the nature of participants. Participants with an existing diagnosis may have a better chance of having more severe problems and of having suffered from AD/HD longer than the participants with a new diagnosis. These different natures of participants are important for readers to understand research more accurately.

Interviews and rating scales

As mentioned previously, researchers showed a preference of relying on parents over teachers as an information source. However, Korean journals prefer parent rating scales to parent interviews whereas American journals more frequently used parent interviews than rating scales. This finding may be related to the fact that rating scales are

easier to administer and interpret since diagnostic interviews need well-trained personnel and longer time to administer and interpret.

Also, it was found that in Korean journals, the proportion of studies that used parent or teacher reports was generally lower than those of American journals. This brings up a question of diagnostic methods that Korean researchers used. As mentioned previously, it is important to include information provided by those who have observed participants since definitive diagnostic tests for AD/HD are not currently available. However, there is still a possibility that Korean researchers did not report what they used for diagnosis.

Additional diagnostic methods used

It was found that the Korean psychiatry journal more likely used direct observation (20%) and laboratory tests (15%) whereas the American psychiatry journal more frequently utilized child self-report (49%). Researchers should more frequently use child self-report, direct observation and laboratory tests in order to obtain accurate information about participants.

Clarity of diagnostic practices

As expected, nearly half of the studies in Korean journals (47% in the Korean psychology journal and 45% in the Korean psychiatry journal) were judged as unclear in which diagnostic methods were used by researchers while all the articles in American journals specified which diagnostic methods were used. The high proportion of Korean studies that failed to state diagnostic methods used may be because there are many

articles in the Korean journals that did not typically provide information about the use of informants and additional diagnostic methods.

Limitations of the Current Research

The findings of this study should be viewed in light of several limitations. First, the four journals selected might not be representative of their Korean and American psychological and psychiatric concentrations. However, these journals were carefully selected according to their level of impact in their respective fields. Second, this study dealt with articles written in Korean. Therefore, due to potential translation errors, the reliability of the coding system may have been impaired. The use of an expert in Korea may have had an effect on the reliability for, first of all, the error in translation going from Korean articles to a coding form, written in another language and second, difficulties in amending disagreements. Additionally, the need for expertise in Korean will make it hard to do follow-up studies in other countries. Third, the varying sample sizes across the journals could have had a deleterious effect on the significance levels reported. It is also likely that some of the central findings may not have reached levels of significance due to the varying sample sizes across the four journals. Fourth, articles within the Korean targeted journals and time frame were identified using the Internet databases. It is possible that some studies using children diagnosed with AD/HD may have been overlooked. Therefore, studies sampled may not be representative of the true universe of studies published within each journal. Finally, it must be taken into account

that important information about researchers' diagnostic practices may be edited out during the normal editing process that manuscripts endure prior to publication.

<center>Recommendations for Documentation of Diagnostic Practices</center>

The generalizability of research can be increased when using participants diagnosed with AD/HD in a clear and reproducible manner. To do so, an AD/HD diagnosis requires those diagnosed to have met criteria including the age of onset, impairment in multiple settings, and the use of multiple informants (APA, 2000). Hyperactive-impulsive or inattentive symptoms that cause impairment prior to the age of seven must be present since all editions of the *DSM* have characterized AD/HD as a disorder of early childhood (Applegate et al., 1997). Even though there are researchers such as Applegate et al. (1997) who suggest that, in order to increase diagnostic validity, the age of onset criterion should be dropped, raised by a year or two, or that the focus should be shifted to the onset of symptoms rather than impairment, it is still important to adhere to this criterion or at least document deviations from it. McGee, Williams, and Feehan (1992) suggested that the age of onset may distinguish between pervasive (onset by age 5-6) and situational AD/HD (onset between ages 6 and 7). According to Whalen and Henker (1998), those with earlier onset were more likely to have comorbid disorders, cognitive deficits, family disadvantage, and persistence of problems at least into adolescence, while the problems of those with later onset seemed to be secondary to reading failure and to have a noticeably better prognosis.

DSM-IV-TR (2000) stipulates that impairments must be present in at least two settings and the clinician should gather information from multiple sources. Individuals with AD/HD diagnosis rarely display the same level of impairments in all settings or within the same setting at all times. Impairments improve or worsen depending on characteristics of tasks demanded by situations. For example, impairments typically worsen in situations requiring sustained attention or mental effort. However, under close supervision or in one-to-one situation, impairments may be minimal or absent. Also, significant levels of report from both multiple informants should be required. Again, definitive diagnostic tests for AD/HD do not currently exist (Sangare, 2000). Therefore, researchers must rely on reports from those who have observed the child (e.g., parents and teachers) in order to obtain an accurate diagnosis of AD/HD and increase generalizability.

Korean journals (*KJCP* and *JKNA*) as well as American journals (*JCCPAP* and *JAACAP*), however, did not report full compliance with the criteria put forth in the *DSM*, often ignoring age of onset, multiple settings, and the use of multiple informants. According to Hinshaw et al. (1997), some researchers have advocated using diagnostic criteria in a more inclusive manner so as to reduce the risk of false negatives and to increase the comparability of research and clinical populations. However, researchers should try to avoid too much variability in the participant selection process to increase the generalizability of research findings because within-subject characteristics can cause the impact of a particular treatment to vary (Kazdin, 1995). Therefore researchers should

thoroughly document any deviations from these criteria so that other researchers and clinicians can be aware of the standards that were, or were not, used in the study.

As expected, it seemed that researchers have focused almost exclusively on male participants, perhaps because of the need for homogeneity in research samples. This need may also reflect possible referral biases and/or a differential impact of selection criteria on female participants. Participants of a National Institute of Mental Health (NIMH) Conference on Sex Differences in AD/HD noted the existence of substantial evidence of normative sex differences that influence the manifestations of AD/HD, so that the issue of selecting comparable gender-matched subjects for study is important (Arnold, 1996). However, because AD/HD is so common and chronic, even a small proportion of females can be multiplied by such a large base, resulting in many more females with AD/HD than expected. Community-based studies have found male-female gender ratios as low as 2.1:1(Szatmari, 1992; Taylor, Heptinstall, Sonuga-Barke, & Sandberg, 1998), confirming that females with AD/HD have been neglected by clinicians and researchers (Berry, Shaywitz, & Shaywitz, 1985). Sharp et al. (1999) also found the clinical comparability of the female research sample. Therefore, researchers must continue to study gender-specific treatment options and outcome as well as gender differences related to AD/HD.

The comorbidity issue is difficult because while studying "pure" samples seems necessary to increase the internal validity of controlled studies, "pure" ADHD is not a common clinical picture. Within AD/HD samples, the prevalence of two or more disorders, or comorbidity, is relatively high (Kazdin, 1995). In fact, under the category of developmental behavioral disorders, AD/HD, Conduct Disorder (CD) and Oppositional

Defiant Disorder (ODD) frequently coexist, and are often seen as overlapping disorders (Cohen et al., 1994). Campbell and Stanley (1963) pointed out that heterogeneity within samples can compromise the internal validity of individual studies and decrease the ability of researchers to compare results across studies. In order to increase external validity, some researchers have even suggested that AD/HD paired with other common comorbid disorder should be studied and viewed as separate diagnostic entities (Jensen et al., 2001). Again, researchers should thoroughly document whether they used pure AD/HD samples in order to inform other researchers and clinicians of sample characteristics they used.

Researchers should also be clear regarding how participants are being diagnosed. While American journals were typically clear on how a diagnosis was made, it was neglected in most of the Korean journal articles. Also, participants' exposure to prior treatment was rarely addressed in Korean journals. These kinds of factors can confound the generalizability of results from treatment outcome studies.

It is important for researchers to effectively document adherence to (or deviation from) *DSM* diagnostic criteria in order to establish comparability of research samples across studies and reduce overall unexplained heterogeneity in the literature. Improved documentation of diagnostic practices in ADHD literature is crucial both for researchers and clinicians. It will increase generalizability of research findings and encourage other researchers to better assess the obtained findings and to acquire further findings. Also it will allow for improved clinical utility of experimental outcomes. Clinicians will be better able to utilize a literature that clearly identifies sample characteristics and sample

selection procedures. Effective international documentation is especially essential both for researchers and clinicians in the U. S. as well as in other nations. It will benefit the assessment and treatment of multicultural children in the U.S. where there is a lack of research regarding children with multi-race or multi-cultural background (Hartley, 2003; Dawkins; 2004). Also, it will help to better understand the present problems of inconsistent sampling and diagnostic practices in the research literature as a whole.

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APPENDIX A

CODING SHEET

Diagnostic Study Preliminary Review
Variable Names & Code Values

Item (Variable label)	Variable Name	Type	Values
Reviewer	Reviewer	C	1 'MC' 4 'SM' 7 'LD' 10 'Ji Hee Hong' 2 'KA' 5 'LM' 8 'JesseH' 11 'Hyun Joo Song' 3 'AM' 6 'JG' 9 'JenniferH'
Date of Review	Date	date	
Journal	Journal	Jnl	
Authors	Author	s	
Title	Title	s	
Year	Year	s	
Vol/pp	Vol&pp	s	
Study Type	Studytyp	s	1 'Assessment/Descriptive' 2 'Treatment/Intervention' 3 'Other'
Treatment Type	Txtype	s	1 'Not a treatment study' 2 'Medication' 3 'Behavioral/Learning/Skill/Psychoeducational' 4 'Combined (2 + 3)' 5 'Other - please list here'
Current Medication Treatment	Currmed	c	1 'medication but no mention of different dosages' 2 'medication and mentions different dosages' 3 'medication – mentions different medication' 4 'medication mentions different medication and dosages" 5 'No medication used in current study'
Prior Treatment	Priortx	c	1 'None specifically stated' 2 'Medication' 3 'Behavioral/Learning/Skill/Psychoeducational' 4 'Combined (e.g., 2 + 3 or 2 + 6)' 5 'Other - please list here' 6 'Summer treatment program' 7 'Unspecified'
Prior Medication Treatment	Primedtx	c	1 'prior medication – no mention of trying different dosage' 2 'prior medication –mentions trying different dosage' 3 'prior medication – mentions trying different medication (list)' 4 'prior medication – mentions trying different medication and different dosages (list)' 5 'Specifically states no medication used before current study' 6 'No mention of prior medication usage'
Response to Prior Treatment	Respprtx	c	1 'Positive response' 2 'Mixed response' 3 'Negative response' 4 'Unspecified' 9 'NA'

Number of ADHD participants	Numbsub	n	
ADHD Age minimum	Agemin	n	(list years/months but convert to years with decimal place for entry)
ADHD Age maximum	Agemax	n	
ADHD Age mean	Agemean	n	
ADHD Age Std Deviation	Agestdev	n	
Number of ADHD girls	Numgirls	n	
Number of ADHD boys	Numboys	n	
Subtypes used?	subtyped	s	1 'yes' 2 'no'
Number of ADHD HI	adhdhi	n	9999 for NA (e.g., pre-*DSM*-IV) or missing

participants			
Number of ADHD I participants	adhdi	n	"
Number of ADHD C participants	adhdc	N	"
Number of ADHD HI females	adhdhif	N	"
Number of ADHD I females	Adhdif	N	"
Number of ADHD C females	Adhdcf	n	"
Number of participants ADD w/hyperactivity	addwh	N	Score 9999 for all but *DSM*-III
Number of ADD w/ hyperactivity females	addwhf	N	"
Number of ADD w/o hyperactivity females	Addwohf	N	"
Number of participants ADD w/o hyperactivity	addwoh	N	"
Number of participants with ADHD	Adhdd3r	N	Score 9999 for all but *DSM*III-R
Number of female participants with ADHD	Adhdfd3r	N	"

ADHD/ADD as only dx allowed	Dxpure	s	1 'Yes - ADD type only was specifically stated' 2 'No - Dual or Mixed diagnoses specifically allowed' 3 "Unsure - not specifically stated' 4 Medical diagnosis- List here:
CD specifically permitted	Pluscd	s	1 'Yes - cd also present' 2 'No'
ODD specifically permitted	Plusodd	s	1 'Yes - odd also present' 2 'No'
LD specifically permitted	Plusld	s	1 'Yes - ld also present' 2 'No'
Adj disorders specifically permitted	Plusadj	c	1 'Yes - adj dis also present' 2 'No'
Substance abuse specifically permitted	plussub	s	1 'Yes - substance abuse also present' 2 'No'
Anxiety disorders specifically permitted	plusanx	s	1 'Yes - anxiety disorders also present' 2 'No'
Mood/depressive disorders specifically permitted	plusmood	s	1 'Yes - mood/depr disorders also present' 2 'No'
Phobia specifically permitted	plusphob	s	1 'Yes - phobias also present' 2 'No'
Other diagnoses specifically permitted	Plusoth		1 'Yes - some other dx (besides above) permitted' (List here) 2 'No'

Exclusionary criteria mentioned	Exclcrit	c	1 'Yes - exclusionary criteria (i.e., any other diagnosis) was mentioned or described' 2 'No' 3 'Unsure' 4 Yes – exclusionary criteria (i.e., medical diagnosis) was mentioned or described
CD specifically excluded?	Exclcd	s	1 'Yes - CD excluded' 2 'No - CD not excluded'
ODD specifically excluded?	Exclodd	c	1 'Yes - ODD excluded' 2 'No - ODD not excluded'
LD specifically excluded?	Exclld	c	1 'Yes - LD excluded' 2 'No - LD not excluded'
Adj disorders specifically excluded?	Excladj	s	1 'Yes - Adjustment disorders excluded' 2 'No - Adjustment disorders not excluded'
Substance abuse specifically excluded?	Exclsub	s	1 'Yes - substance abuse excluded' 2 'No - substance abuse not excluded'
Anxiety Disorders	Exclanx	s	1 'Yes - anxiety disorders excluded'

specifically excluded?			2 'No - anxiety disorders not excluded'
Mood/Depressive disorders specifically excluded?	Exclmood	s	1 'Yes - mood/depressive disorders excluded' 2 'No - mood/depressive disorders not excluded'
Phobias specifically excluded?	Exclphob	s	1 'Yes - phobias excluded' 2 'No - phobias not excluded'
Gross neurological impairment excluded	Exclneur	s	1 'Yes - neurological impairment excluded' 2 'No - neurological impairment not excluded'
IQ cutoff used?	Excliq	s	1 'Yes -IQ cutoff used' 2 'No - no IQ cutoff mentioned' 3 'IQ data provided but not described as cutoff'
IQ test used?	Iqcutsco	s	444 - 'WISC or WISC-R' 555- 'PPVT' 777 – no IQ cutoff used 888 – 'Woodcock Johnson' 999 – 'Stanford-Binet' 000- 'unspecified'
MR/Pervasive Developmental Disability specifically excluded?	Exclpdd	c	1 'Yes - MR/PDD excluded' 2 'No - MR/PDD not excluded'
Psychotic disorders specifically excluded?	Exclpsy	c	1 'Yes - psychotic disorders excluded' 2 'No - psychotic disorders not excluded'
Other criteria specifically excluded	Excoth		1 'Yes - some other criteria (besides above – e.g., no hx of prior med use/tx) excluded' (List here) 2 'No'
Zero evidence that Dual/Extra Diagnoses were considered?	Exdxskip	c	1 'Yes - Dual diagnoses were not mentioned' 2 'No - dual diagnoses were mentioned'

Referral or recruitment source unspecified?	refunsp	s	1 'yes' 2 'no'

Pre-existing Diagnosis?	Dxprev	c	CIRCLE ONLY ONE 1 'Pre-existing dx *confirmed by researchers (additional criteria)*' 2 'New Dx made by researchers' 3 'Pre-existing dx *but not confirmed (no additional criteria)*' 4 'None of the above' 5 'Unsure' 6 'Mixed'

Dx – direct observation	dxdo	s	1 'yes' 2 'no'
Dx – structured interview w/parent	dxsip	s	1 'yes' 2 'no'
Dx – struct interview w/teacher/adult	dxsita	s	1 'yes' 2 'no'
Dx – unstruct interview w/parents	dxuip	s	1 'yes' 2 'no'
Dx – unstruct int w/teacher/adult	dxuita	s	1 'yes' 2 'no'
Dx – parent qs used for dx	dxparq	s	1 'yes' 2 'no'
Dx – type of parent questionnaire	parqtype	s	Note: if more than 1 item circled, enter "12" into database Note: Circle only if used for dx 1 'Conners' 2 'Weiss-Weiss-Peters' 3 'SNAP' 4 '*DSM* Checklist' 5 'CBCL' 6 'Disruptive Beh. Dis. Rating Scale' 7 'ADHD Rating Scale' 8 'ADD-ES' 9 'other' 10 'none conducted' 11 'incomplete or missing reference'

			12 'multiple questionnaires used (list)'
Dx – unsure of methods used for dx	**dxunsure**	**s**	1 'yes' 2 'no'
Dx – labtests used for dx	**dxlabt**	**s**	1 'yes' 2 'no'
Dx – teacher qs used for dx	**dxteaq**	**s**	1 'yes' 2 'no'
Dx – type of teacher questionnaire	**teatype**	**s**	**Note: if more than 1 item circled, enter "12" into database** **Note: Circle only if used for dx** **1 'Conners'** **2 'Weiss-Weiss-Peters'** **3 'SNAP'** **4 '*DSM* Checklist'** **5 'CBCL'** **6 'Disruptive Beh. Dis. Rating Scale'** **7 'ADHD Rating Scale'** **8 'ADD-ES'** **9 'other'** **10 'none conducted'** **11 'incomplete or missing reference'** **12 'multiple questionnaires used (list)'**

Did authors establish cutoff scores or explicit inclusion criteria across more than 1 setting (even if it didn't require significant findings in both settings)?	**Dxcutoff**	**c**	**1 'Yes'** **2 'No'** **Note: If teacher q's are provided for descriptive but not diagnostic purposes, then check 2 for 'No'.**
Did authors *mention* that the ADHD individuals' impairment should exist across more than 1 setting (i.e., home & school; home & work/camp/etc.) for a subject to be dx'd ADHD?	**Dxsettin**	**c**	**1 'Yes'** **2 'No'**
Was the length of time since the original diagnosis date tracked in any way?	**Dxtime**	**c**	**1 'Yes'** **2 'No'**
Were ADHD symptoms explicitly required to be present prior to age 7?	**Dxage7**	**s**	**1 'yes for all participants'** **2 'yes for some participants'** **3 'no'** **4 'NA as all participants were under age 7'**

Was a diagnostic interview done with parents?	**Dxintpar**	**c**	**1 'Yes'** **2 'No'**
Was a diagnostic interview done with teachers?	**Dxinttea**	**c**	**1 'Yes'** **2 'No'**

Parents: Diagnostic interview conducted by	**Dxpintby**	**c**	**CIRCLE ALL THAT APPLY** **1 'Psychologist' 7 'School representative (other)'** **2 'Pediatrician or 8 'Graduate Student'** **Family Doctor'** **3 'Child Psychiatrist' 9 'Other"** **4 'Physician other' 10 'Mixed' (CIRCLE OTHERS)** **5 'School Psychologist' 11 'No interview conducted'** **6 'School Counselor' 12 'Unsure'**
Parents: Diagnostic interview conducted with whom?	**Dxpintwh**	**c**	**1 'states mothers only'** **2 'states fathers included on at least some cases'** **3 'states "parent or parents" '** **4 'no parent interview conducted'** **5 'unsure' (describe)**
Parents: Type of Diagnostic interview used by	**Dxpintyp**	**c**	**Note: if used *DSM* criteria give credit for semi-structured** **1 'structured or semi-structured'**

Researchers			2 'unstructured only' 3 'none' 4 'unsure'

Type of structured interview conducted	strucint	s	1 'DICA' 2 'PICS/PICS-R' 3 'DSPI-ADHD' 4 'other' 5 'none conducted'

Teachers: Diagnostic interview conducted by	Dxtintby	c	**CIRCLE ALL THAT APPLY** 1 'Psychologist' 7 'School representative (other)' 2 'Pediatrician or Family Doctor' 8'Graduate Student' 3'Child Psychiatrist' 9 'Research Asst - other" 4 'Physician other' 10 'Mixed' 5 'School Psychologist' 11 'No interview conducted' 6 'School Counselor' 12 'Unsure'
Teachers: Type of Diagnostic interview used by Researchers	Dxtintyp	c	1 'structured or semi-structured' 2 'unstructured only' 3 'none' 4 'unsure'

From this point forward considered whether items were used diagnostically

Parent rating scale used for diagnosis?	Parscale	c	1 'states mothers only' 2 'states fathers included on at least some cases' 3 'states "parents" or "parent' or 'parent type figure' 4 'no parent ratings collected' 5 parent's scales not used diagnostically
Teacher rating scale used for diagnosis?	Teascale	c	1 '1 teacher per child' or states "teacher" (number unspecified)' 2 '2 teachers per child' 3 'More than 2 teachers per child' 4 'Used only for some children' 5 'Teacher scales not used diagnostically' 6 'none used'
Child Self-report used for diagnosis?	Kidrep	c	1 'used for all' 2 'used for some' 3 'not used at all' 4 'not used diagnostically'

Lab tests and measures used for diagnosis?	Labtests	c	1 'used for all' 2 'used for some' 3 'not used' 4 'unsure'
MFFT12 used for dx?	MFFT12	C	1 'used for all' 2 'used for some' 3 'not used' 4 'unsure'
MFFT20 used for dx? (Kagan 1964)	MFFT20	C	1 'used for all' 2 'used for some' 3 'not used' 4 'unsure'
Gordon Dx System used for dx?	GDS	C	1 'used for all' 2 'used for some' 3 'not used' 4 'unsure'
Conner's CPT used for dx?	CONCPT	C	1 'used for all' 2 'used for some' 3 'not used' 4 'unsure'
Freedom from distractibility used for dx?	Freedist	C	1 'used for all' 2 'used for some' 3 'not used' 4 'unsure'

Cancellation tasks used for dx?	Canctask	C	1 'used for all' 2 'used for some' 3 'not used' 4 'unsure'
Frustration tasks used for dx?	Frustask	C	1 'used for all' 2 'used for some' 3 'not used' 4 'unsure'

DSM used?	*DSM*USE	c	1 '*DSM* III-R (APA, 1987) used' 2 '*DSM* IV or IV-TR (APA, 1994 or 2000) used' 3 'Used but version not specified' 4 'Not specifically mentioned' 5 'Used for some participants' 6 '*DSM* II (APA, 1968) used' 7 '*DSM* III (APA, 1980) used' 8 'More than 1 version used' Describe: 9 '*DSM* specifically not used' Describe:
Were the participants on meds at the time researchers made or confirmed the diagnosis? Note: this is especially relevant for when researchers add new criteria for referred participants.	Dxonmeds	s	1 'Assessment done when NOT on meds' 2 'Not stated' 3 'Assessment done when some/all were on meds'

Were rural participants definitely used?	Rural	s	1 'yes' 2 'no'

Were non-Caucasians definitely used?	ethnic	s	1 'yes' 2 'no'
Number of ADHD African-Americans used	afram	N	
Number of ADHD Hispanic Americans used	hispam	N	
Stated 'others' for race of ADHD	other	N	
Number of ADHD Asian Americans used	asian	N	
Number of ADHD Native Americans used	natam	N	
Number of ADHD East Indians used	eastind	N	

Teachers used for dx	tuseddx	s	1 'yes' 2 'no'
Parents used for dx	puseddx	s	1 'yes' 2 'no'
Dx process included parents and teachers for all participants	ptincldx	s	1 'yes' 2 'no'
Dx requires significant report from both parent and teacher	ptsigndx	s	1 'yes' 2 'no'

Drop out rates mentioned	dropout		1 'yes' 2 'no' Note: give credit if authors provide any comment at all about why the number of subjects decreased from early to late in a study

Social validity check conducted	socval		1 'yes ' 2 'no' **Note: give credit even for anecdotal comments about client or others' reactions to treatment or treatment outcome**
To whom was social validity checked administered	svalwho		**Check all that apply:** 1 'parent' 2 'teacher' 3 'Psychologist' 4 'Pediatrician or Family Doctor' 5 'Physician other' 6 ' School Psychologist' 7 ' School Counselor' 8 'other' 9'School representative' 10 'Mixed' (CIRCLE OTHERS) 11 'Child' 12 'None'
Manipulation check of compliance to treatment conducted	txcompl		1 'yes' 2 'no' **Note: say 'yes' if there was an inpatient setting or e.g., it says nurses administered meds or behavioral specialists staffed the activities**
Length of prior TX indicated			**Convert to months (4 wks = 1 mo, 30 days = 1 mo)**
Length of current TX indicated - sessions			**Number of sessions - average** **Note: give both sessions and weeks if it says both. Provide average if given, or compute average if range given.**
Length of current TX indicated - weeks			**Number of weeks - average** **Note: give both sessions and weeks if it says both. Provide average if given, or compute average if range given.**
Replacement/adaptive behaviors intentionally developed	Replbh		1 'yes' 2 'no'

APPENDIX B

IRB WAIVER LETTER

Mississippi State
UNIVERSITY

November 21, 2002

Kevin J. Armstrong
Psychology
Mailstop 9514

    Re: Student research projects – Empirical reviews of ADHD literature

Dear Kevin:

I have reviewed your email dated November 18, 2002. IRB review is required for any project that constitutes human subject research as defined in 45 CFR 46. These concepts are explained in detail in the MSU IRB Handbook available online at:
http://www.msstate.edu/dept/compliance/documents/irb/irbhandbook.pdf.

Based on my review of the purpose of the studies and the procedures to be used, these projects would not meet the definitions referenced above and therefore IRB review would not be required.

If I can provide any further assistance, please feel free to contact me.

Sincerely,

Tracy S. Arwood
Regulatory Compliance Officer