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Research Article

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Prevalence and treatment differences between Vietnamese and American children with attention-deficit/hyperactivity disorder

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Abstract
Attention-Deficit/Hyperactivity Disorder (ADHD) is one of the most common and pervasive childhood disorders worldwide. Although the United States is currently leading in prevalence of this disorder, the research demonstrates that racial and ethnic disparities in prevalence and treatment exist in the United States. However, some American minorities do not represent a full range of socioeconomic levels as they exist in their countries of origin, e.g., Vietnam. Thus, we compared children with ADHD ages 5 to 17 in Vietnam and the United States to examine the prevalence and treatment differences between the two countries. The data were obtained via interviews of professionals, Centers for Disease Control and Prevention website, and other studies. Notable differences were found between the two countries with regard to the prevalence rates of ADHD in children, gender differences, availability of the diagnostical and treatment services for ADHD, kinds of treatments used, and cultural factors responsible for the differences in the two countries. Vietnam is a predominantly rural society with a lack of awareness of the problem of ADHD and with a lack of treatment facilities and governmental support as compared to the United States. Suggestions were made to improve the diagnosis, treatment, and treatment outcomes for the children with ADHD in Vietnam.

Keywords: ADHD in Asian American Children, ADHD Children in the United States, ADHD Treatment, Prevalence of ADHD in Vietnam, Prevalence of ADHD in the United States

Introduction
Attention-Deficit/Hyperactivity Disorder (ADHD) is one of the most common and pervasive childhood conditions with prevalence between 4% and 12% worldwide [1]. Currently, the United States is leading in prevalence of this disorder [2,3]. ADHD usually manifests in childhood with three core characteristics: hyperactivity, impulsivity, and inattention [4]. Research demonstrates that children and adolescents with ADHD tend to experience negative health and educational outcomes that have lifelong impact on them [5-7]. Based on the international law [8] and United Nations Convention on the Rights of the Child [9], any person under the age of 18 years of age is considered a child. Thus, in the present study, the term "children" is used to refer to both children and adolescents.

Although the United States is currently leading in prevalence of ADHD, the research demonstrates that racial and ethnic disparities in prevalence and treatment exist in the United States [3]. However, the minority groups in the United States do not represent a full range of socioeconomic levels, especially the Asians. Black, White, and Hispanic children are more often diagnosed with ADHD (12%, 10%, and 8%, respectively), tha Asian, children (3%) [10]. Thus, the purpose of the present exploratory study was to compare the American and Vietnamese children (an Asian population outside the United States) with regard to prevalence and treatment of ADHD. This comparison was done to see if the children in an Asian country also have lower prevalence rate as do the Asian children in the United States and if the ADHD treatment differed in the two countries. Also, an effort was made to identify the factors responsible for the differences.

Method
Research and awareness of ADHD is fairly new and limited in Vietnam [11]. No source or agency was found that provided national statistics on Vietnamese children with ADHD. Thus, the information about children with ADHD (age 3-17) was obtained by interviewing the Director of Admissions at a psychiatric hospital (V Hospital) in a large Central Vietnam city (CV City). The names of the hospital and city are kept confidential to maintain the privacy of the children served by the V Hospital. The ADHD (age 3-17) statistics in the United States was obtained from the Centers for Disease Control and Prevention (CDC) website [12]. Children's Mental Health Program Director at the MHMR Services of a West Texas city provided additional information about treatment in the

United States. Some of the data and treatment information about children with ADHD in Vietnam was provided by the V Hospital official.

Results

One major difference between the two countries is that 83% if the American population is urban [13], while only 38% of the Vietnamese population is urban [14]. The diagnostical and treatment services for ADHD are not available to the rural 62% of the Vietnam people unless they go to the big cities. In the United States, two federal laws guarantee a free appropriate public education and provide services or accommodations to all students with disabilities. These laws are (1) Section 504 of the Rehabilitation Act of 1973 and (2) Individuals with Disabilities Education Act [15].

Another major difference between the two countries has to do with the mental healthcare industry. A National Mental Health Services survey [16] reported that there are 692 Psychiatric hospitals in the United States, while currently only 36 psychiatric hospitals exist nationwide in Vietnam with a bed number of about 6,000 [17]. The government of Vietnam reported that only about 15% of the population requires mental health care services, but the researchers report the estimates to be closer to 20-30% [18]. The overall healthcare spending also differs in the two countries. Estimate of 2019 health expenditures including healthcare goods and services for Vietnam is 5% per capita as compared to 17% per capita in the United States [13]. These differences seem to explain the current state of diagnosis and treatment of children with ADHD in Vietnam to be discussed later in this article.

Although no information about nationwide prevalence of ADHD in children and their treatment was found, different prevalence rates were reported by different sources. Two studies of two communities reported the following prevalence rates: Hue city-5% [19] and Vinh Long-7% [20]. In a recent interview [21], N. T. K. Tiên, head of the psychology department at the HCM City Hospital of Mental Health reported that 3.2% to 9.3% of the Vietnamese children were diagnosed with ADHD. Two other ADHD prevalence rates in children were reported by the Vietnamnet Global [22]; North Vietnam was reported to have 3.1% of the children diagnosed with ADHD, while the South Vietnam was reported to have 6.5%, which is two times higher. Based on these diverse prevalence rates in Vietnam, t the best estimate at this time is the average of these rates, which is 5.7%. The ADHD prevalence rate for all children (age 3-17) in the United States from 2013 to 2015 (time frame similar to the two empirical studies by Do, 2013 and Pham et al. [19,20] was 10.4%, however, the prevalence rate was much lower (3%) for the Asian children [12].

According to T. N. Minh [21], head of the psychology department at the National Children's Hospital, ADHD is much more common in boys than girls and symptoms usually appear before the age 7. Three times more boys than girls were diagnosed with ADHD in Vietnam [22]. The official from the V Hospital reported that between 2015 and 2016, a total of 546 children of 3-17 years of age were diagnosed with ADHD. Of these, 29% were females and 71% were males. However, in the United States, the gender gap is smaller. Only two times more American boys (13%) than girls (6%) were reported to be diagnosed with ADHD [12].

The standard treatment used by the V Hospital for almost 100% of the children was pharmacotherapy, while 90% of American children with ADHD received three other major interventions: behavior therapy, counseling, and education services. Treatment cost at the V Hospital was self-provided, whereas insurance and government paid most of the expenses in the United States. The socioeconomic status of the Vietnamese families of children with ADHD was middle class or higher, while the American children with ADHD came from all socioeconomic levels. Schools in CV City provided very limited support to the children with ADHD, but most of the American children with ADHD received school support (accommodations and help in the classroom). Only a few schools in CV City offered counseling and unlike in the United States, there was a lack of coordination of services between school, family, and service providers. There were no programs in CV City for the parents, while in the United States, parenting skills training, support groups, and family therapy were available for the parents.

After interviewing two experts, the Viet Nam News [21] reported medicine as the main treatment which often took a minimum of 12 months for results and that one common mistake some families made was halting the "treatment process." This led to relapse and "serious and irreversible consequences". The V Hospital official reported that the dropout rate in their hospital was extremely high and that very low percentage of children completed the treatment regimen. No exact numbers of dropout and termination rates were provided.

Discussion

On the surface, the results from this study about ADHD in children of Vietnam coincide with the statistics reported about lower prevalence rates of ADHD in Asian children in the United States. The results showed that the United States prevalence rate of ADHD is two times higher than the prevalence rate in Vietnam. In reality, this might be due to not reaching and diagnosing many Vietnamese children with ADHD because there are no organized nationwide diagnostical and treatment programs and Vietnamese population is predominantly rural. It is estimated that currently the number of children diagnosed and treated with ADHD in Vietnam is modest and millions of children remain undiagnosed and untreated [22].

The treatment modalities in the United States are more varied and specific to each child than providing the same treatment for all children as is done in Vietnam. According to the information collected in the V-Hospital, almost all children diagnosed with ADHD by this hospital were treated primarily with medication and no other intervention. The additional interventions in the United States include skills-training and cognitive behavioral therapy, which is empirically identified as the best therapy for children

with ADHD [12]. Also, children in the United States receive more support from school through family therapy and school-based interventions than do the Vietnamese children.

There is no treatment program for children with ADHD in the rural areas of Vietnam. Diagnostical and treatment services are only available in the big cities that many rural families cannot access or afford. In contrast, in all areas throughout the country, United States has various services and programs for children with ADHD including a long-term management plan and psychoeducation. The doctors, parents, caregivers, and other health care professionals work together to make a more individualized treatment plan for each American child. Parents also receive family counseling and special training to parent the child with ADHD [23]. Parent training is a major part of the intervention in working with children with ADHD in the United States. Further, the financial insurance and governmental support that exist in the United States are important factors for program success for children with ADHD. In Vietnam, parents have to pay themselves for any ADHD treatment for their children.

Several possible factors are considered that might be responsible for the differences in two countries regarding ADHD in children. The lack of knowledge and awareness about ADHD in Vietnam seems to be the major reason for the differences. Knowledge and awareness of any disorder is imperative for designing programs for early detection and treatment, which is a key to ensuring effective treatment outcomes. Because around 65% of individuals with ADHD diagnosis in childhood tend to show persistence of some symptoms into adulthood [2], early detection and treatment of ADHD is necessary for adulthood adjustment of children with ADHD.

A lack of awareness of ADHD is also a serious barrier to the good health, education, and learning for the children with ADHD. Because of parents' lack of knowledge, the disorder cannot be identified and treated in a timely manner [22]. In other words, without knowing anything about ADHD, parents cannot identify ADHD symptoms in their children and get the help they need. This lack of awareness in Vietnam might be due to number of reasons, such as inaccessibility or inaccuracy of information, cultural stigma, and financial limitations, which can keep parents from seeing professionals. In the United States, knowledge of ADHD has been in existence for decades and this disorder receives much support from the government, schools, and society.

The mental healthcare industry is still developing in Vietnam [17]. Cultural stigma is a major impediment in this respect. The cultural stigma attached to any mental health problem is attributed to the negative ancestral behaviors, which can prevent families from seeking help [11]. Integrating mental health into primary care in Vietnam is difficult at the present time because of the lack of governmental support, shortage of human resource, cultural stigma, and lack of evidence-based interventions [24]. Therefore, based on the above analysis, we offer a few suggestions that might be useful to authorities in Vietnam and other developing countries to improve the early detection, treatment, and outcomes for the children with ADHD.

Governmental financial aid to those who need to be tested and treated for ADHD is the first important step. This would help in identifying more children with ADHD and facilitating their treatment with increased positive outcomes. Educational and awareness programs in the communities and schools that would help improve the knowledge and understanding of teachers and parents about ADHD is most necessary second initiative. This will help ameliorate the ignorance and a lack of resources for the ADHD treatment programs.

Schools are an imperious source of information for diagnosing ADHD children. Cooperation among schools, parents, and professionals strongly influences the effectiveness and outcomes of the ADHD treatment. Enhancing the knowledge of teachers and other school staff about ADHD can be a reliable source of information for diagnosing the ADHD in children. With the knowledge about ADHD, teachers can devise more appropriate teaching programs and ways to help their students academically. Additionally, enhancing the knowledge of medical professionals and hospital staff, organizing conferences, group meetings, and training about ADHD can further facilitate the early detection, diagnosis, and treatment of children with ADHD. However, because of the lack of knowledge, awareness, financial support, and training to diagnose and treat ADHD, professionals have a long way to go to bring Vietnam to an acceptable level of programs for children with ADHD.

It is our hope that this preliminary comparative study would bring to the attention of the authorities in Vietnam the need for new initiatives to better serve the children with ADHD. Additionally, since Vietnam is still 62% rural and government is not yet involved in diagnosing and treating the children with ADHD, more advocacy and research are needed in this area to identify the prevalence and scope of the problem.

Conclusions

To sum up, we make the following conclusions about ADHD in children of the United States in comparison to ADHD in children of Vietnam. (1) The United States prevalence rate of children with ADHD is two times higher than the prevalence reported in the urban areas of Vietnam, which might be due to failure of detection of the problem in Vietnam. (2) The prevalence rate is higher (5.3%) in Vietnam than the Asians living in the United States (3%), which indirectly supports the first conclusion. (3) The gender gap in ADHD children is bigger in Vietnam (three times more boys than girls) than in the United States (two times more boys than girls). (4) Treatment in the United States is more varied and specific to each child; treatment is more or less the same for all children with ADHD in Vietnam. (5) There is a lack of advocacy and governmental support of ADHD in Vietnam, whereas ADHD is well recognized and supported by the American government. (6)

Several cultural factors are considered to be responsible for the children with ADHD differences in the two countries. As opposed to the United States, Vietnam is a predominantly rural society, lacking awareness of the problem where any mental dysfunction is stigmatized and downplayed. Lack of treatment programs, facilities, and governmental support make it difficult for most families to seek help for their children who might be displaying ADHD symptoms. Obviously, more research, educational programs, and funding are needed to raise the ADHD awareness, launch early detection and intervention programs, provide family training, and support to those who are diagnosed with ADHD.

References

1. Hoang HH, Tran ATN, Nguyen VH, Nguyen THB, Nguyen TAP, et al. (2021) Attention Deficit Hyperactivity Disorder (ADHD) and associated factors among first-year elementary school students. J Multidiscip Healthcare 14:997-1005.
2. Faraone V, Biederman J, Mick E (2006) The age-dependent decline of attention deficit hyperactivity disorder: A meta-analysis of follow-up studies. Psychological Medicine 36(2):159-165.
3. Shi Y, Guevara RH, Dykhoff HJ, Lindsey HJ, Sangaralingham LR, et al. (2021) Racial disparities in diagnosis of Attention-Deficit/Hyperactivity Disorder in a US national birth cohort. JAMA Network Open 4(3):e210321.
4. Thapar A, Cooper M (2016) Attention deficit hyperactivity disorder. Lancet 87(10024):1240-1250.
5. Fleming M, Fitton CA, Steiner MFC, Mclay JS, Clark D, et al. (2017) Educational and health outcomes of children treated for attention-deficit/hyperactivity disorder. JAMA Pediatrics 171(7):e170691.
6. Landes SD, London AS (2019) Self-reported ADHD and adult health in the United States. J Attention Disorders, 25(1):3-13.
7. Ros R. Graziano PA (2018) Social functioning in children with or at risk for attention deficit/hyperactivity disorder: A meta-analytic review. J Clinical Child & Adolescent Psychol 47(2):213-235.
8. Buck T (2011) International Child Law. New York, NY: Routledge.
9. United Nations Children's Fund (UNICEF, 2021) Convention on the Rights of the Child text. https://www.unicef.org/child-rights-convention/convention-text
10. 10. Bitsko RH, Claussen AH, Lichstein J, Black LI, Jones SE, et al. (2022) Mental health surveillance among children-United States, 2013-2019. MMWR 71(2):1-48.
11. Hoang NP (2018) Social support among parents of children with ADHD in Vietnam. Child Welfare 96(3):21-40.
12. Centers for Disease Control and Prevention (2023) Data and Statistics About ADHD. U.S. Department of Health and Human Services. https://www.cdc.gov/ncbddd/adhd/data.html
13. https://www.macrotrends.net/countries/USA/united-states/urban-population
14. https://www.macrotrends.net/countries/VNM/vietnam/urban-populationMacrotrends
15. CHADD (2023) Educational rights for children with ADHD in public schools.
16. SAMHSA (2019) National Mental Health Services Survey (N-MHSS). Data on Mental Health Treatment Facilities. Rockville, MD: Substance Abuse and Mental Health Services Administration.
17. https://www.vietnam-briefing.com/news/mental-healthcare-industry-in-vietnam.html/
18. Cuong TV (2017) Mental health care in Vietnam. Taiwanese Journal of Psychiatry 31(4):287-299.
19. Do MTL (2013) A study on clinical characteristics of attention deficit and hyperactivity disorder in children age six to ten. (Master's thesis). Educational University. Hanoi. Vietnam.
20. Pham DH, Nguyen HBH, Tran TD (2015) Prevalence of ADHD in primary school children in Vinh Long. Vietnam Pediatrics International, 57:856-859.
21. Viet Nam News (2022) Experts advise more attention to ADHD in children.
22. Vietnamnet Global (2019) Hyperactive children with ADHD are not treated because of parents' misperceptions. News. https://vietnamnews.vn
23. Kevill J (2012) ADHD: Clinical practice guideline for the diagnosis, evaluation, and treatment of Attention-Deficit/Hyperactivity Disorder in children and adolescents. Yearbook of Neurology and Neurosurgery 140-141.
24. Nguyen T, Tran T, Tran H, Tran T, Fisher J (2019) Challenges in integrating mental health into primary care in Vietnam. In: Okpaku, S. (eds), Innovations in global mental health. Springer, Cham 1-21.

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