How Well Is CHIP Addressing Health Care Access and Affordability for Children?

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ABSTRACT

OBJECTIVE: We examine how access to care and care experiences under the Children's Health Insurance Program (CHIP) compared to private coverage and being uninsured in 10 states.
METHODS: We report on findings from a 2012 survey of CHIP enrollees in 10 states. We examined a range of health care access and use measures among CHIP enrollees. Comparisons of the experiences of established CHIP enrollees to the experiences of uninsured and privately insured children were used to estimate differences in children's health care.
RESULTS: Children with CHIP coverage had substantially better access to care across a range of outcomes, other things being equal, particularly compared to those with no coverage. Compared to being uninsured, CHIP enrollees were more likely to have specialty and mental health visits and to receive prescription drugs; and their parents were much more likely to feel confident in meeting the child's health care needs and were less likely to have trouble finding providers. CHIP enrollees were less likely to have unmet needs, but 1 in 4 had at least 1 unmet need. Compared to being privately insured, CHIP enrollees had generally similar health care use and unmet needs. Additionally, CHIP enrollees had lower financial burden related to their health care needs. The findings were generally robust with respect to alternative specifications and subgroup analyses, and they corroborated findings of previous studies.
CONCLUSIONS: Enrolling more of the uninsured children who are eligible for CHIP improved their access to a range of care, including specialty and mental health services, and reduced the financial burden of meeting their health care needs; however, we found room for improvement in CHIP enrollees' access to care.

KEYWORDS: access and use of health care; affordability; CHIP; comparison of health insurance coverage types; emergency department visit; health insurance adequacy; mental health visit; prescribed medicine; public health insurance; specialist care; unmet health care needs

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WHAT'S NEW

Most children enrolled in the Children's Health Insurance Program (CHIP) did not have unmet health needs and do not have higher risk of unmet needs than comparable privately insured children. The parents of children enrolled in CHIP were much less likely to consider it a financial burden to pay for their child's health care than their privately insured counterparts.

THE CHILDREN'S HEALTH Insurance Program (CHIP) was created in 1997 to expand insurance coverage to more children in low-income families. Although CHIP coverage reduces financial barriers to health care, having health insurance does not guarantee that children will get the care they need. For example, the family's ability to find and obtain appointments with health care providers when services are needed and the financial burden associated with accessing care are also important factors. When services are not available or are not affordable, unmet health care needs and delays in the diagnosis and treatment of health care problems can arise.

Thus, an important metric for CHIP is the extent to which the program improves children's access to and receipt of care compared to the alternatives—private coverage or no insurance. CHIP is expected to reduce the financial burden and other barriers to access for the children who enroll, particularly relative to being uninsured. As a result, CHIP enrollees should have access to care at a comparable level to children with private insurance.

Here we present updated and expanded evidence on selected health care access and use measures among CHIP enrollees compared to those with no insurance and those with private coverage in 10 states. Measures included access to specialist and mental health care and related services; unmet health needs; and parental perceptions of the coverage and their financial burden. We examined how access to care and care experiences under CHIP compare to private coverage and being uninsured. The analysis was conducted as part of an independent, comprehensive evaluation of CHIP mandated in the Children's Health Insurance Program Reauthorization Act of 2009 (CHIPRA) and conducted by Mathematica Policy Research and its partner, the Urban Institute, on

behalf of the Secretary of the US Department of Health and Human Services and overseen by the Office of the Assistant Secretary for Planning and Evaluation.[1] This is one in a series of articles in this supplement that report on findings from a large 10-state household survey of CHIP enrollees and disenrollees conducted as part of the evaluation.

Prior research has demonstrated that children with public health insurance coverage experience fewer access problems and receive more health services than uninsured children.[2–4] For instance, Howell and Kenny reviewed the evidence for the impact of Medicaid and CHIP on access to and use of services for children, including studies that focus on CHIP, such as the 2007 Kenney study.[3,4]

Several studies have compared children's access to and use of services under public health insurance to private health insurance using federal surveys such as the Medical Expenditure Panel Survey (MEPS), the National Health Interview Survey (NHIS), and the National Survey of Children's Health (NSCH).[5–8] Findings suggest that children with public and private insurance have similar levels of access and use on many measures, after accounting for demographic and socioeconomic differences between the 2 groups. For example, they are equally likely to have a usual source of care and to obtain recommended preventive visits.[6–8] Yet compared to children with private coverage, children with public coverage have more difficulty accessing after-hours care and specialist care.[6,8] And children enrolled in public coverage are more likely than those with private coverage to have emergency department (ED) visits.[8] In contrast, children with private coverage are more likely to experience financial burdens related to their child's health care compared to those enrolled in public coverage.[9]

METHODS

SURVEY DATA

The data for this study were drawn from a telephone-based survey of parents of 12,197 CHIP enrollees and disenrollees in 10 states fielded by Mathematica Policy Research from January 2012 through March 2013 as part of the CHIPRA-mandated evaluation of CHIP. The states included were Alabama, California, Florida, Louisiana, Michigan, New York, Ohio, Texas, Utah, and Virginia. These states were selected because they utilize diverse approaches to providing health insurance coverage for children, represent various geographic areas (including a mix of more rural and more urban states and a variety of races/ethnicities), and each contains a significant portion of uninsured children. In 2012, CHIP enrollees in these states represented approximately 57% of CHIP enrollees nationally.[10]

We used state eligibility and enrollment files to construct the sample frame for each state and randomly selected children (18 years or younger) in 3 strata in each state, as follows: 1) established enrollees (children who had been enrolled in CHIP for 12 or more consecutive months at the time of sampling), 2) recent enrollees (children who had been enrolled in CHIP for exactly 3 consecutive months, preceded by a gap in public coverage of at least 2 months, at the time of sampling), and 3) recent disenrollees (children who were disenrolled from the program for exactly 2 months, at the time of sampling, and who were previously enrolled for at least 3 months before the month of disenrollment).

Recent CHIP enrollees who transferred from Medicaid or who returned to CHIP after a short gap in public insurance coverage (3 months or less) were excluded from the sampling frame for 2 reasons. First, parents of such CHIP enrollees are often unaware of these coverage transitions and therefore are not able to reliably describe health care experiences before their (re)enrollment in CHIP. Second, because their coverage history reflects a period of public coverage, these children do not represent a useful comparison group for assessing how CHIP differs from private insurance coverage or no insurance coverage.

The final survey data included responses from parents of 5518 established enrollees, 4142 recent enrollees, and 2537 disenrollees. The overall survey response rate was 51% for established enrollees, 46% for recent enrollees, and 43% for recent disenrollees. The survey included a wide range of questions related to the sampled child's current and prior health insurance, health status and needs, and health care use and experiences, many of which were adapted from other large surveys relevant to children's health. Additional details on the survey, including the questionnaire, are available elsewhere.[11] The study was reviewed and approved by the New England Institutional Review Board (NEIRB 12-200).

STUDY DESIGN

We compared the experiences of established enrollees who had been on the program for at least 1 year to the pre-enrollment experiences of recent CHIP enrollees. Established enrollees were asked about their experiences during the last 12 months of enrollment, while recent enrollees were asked about their experiences during the 12 months before their enrollment in CHIP. We focused our analyses on comparisons between established enrollees and 2 subgroups of recent enrollees: recent enrollees who were uninsured for 5 to 12 months before enrollment, and recent enrollees who were privately insured for 12 months before enrollment. We used the previously uninsured children to compare CHIP to being uninsured and the children previously insured by a private plan to consider how outcomes differ under CHIP versus private coverage.

DEPENDENT VARIABLES

Five major types of outcome indicators were examined across each analytic group, with all outcomes based on parental reports of their child's health care in the past year. These measures have been used extensively in previous work to measure children's health care experiences.[5–8,12]

Meeting child's health needs and the affordability of care.—This includes parental confidence that they could get needed health care for the child, parental stress about

meeting the child's health care needs, frequency of problems paying the child's medical bills, and magnitude of out-of-pocket costs for the child's health care.

Use of various health services.—This includes doctor/other professional visit, specialist visit, mental health visit, ED visit, hospital stay, or prescribed medicine.

Adequacy of access to health providers.—This includes difficulty finding a general doctor and difficulty finding a specialist.

Unmet health needs (whether the child did not get or delayed care for any reason).—This includes an extensive list of specific needs (including the need for doctor/health professional care; prescription drugs, including use of less than the recommended dosage; specialist hospital care; eyeglasses/vision care; mental health care; and dental care), any unmet need, and more than 1 unmet need.

It is important to note that estimating the adequacy of health insurance is complex. Although children covered by CHIP have health care coverage, ensuring access to health services (as opposed to coverage for them) remains a concern.

The composite measure of health insurance adequacy used in this analysis expands on a previously published metric.[9] The measure has 3 domains: 1) benefit adequacy (answering "always/usually" to: How often has child's health insurance offered benefits or covered services that met his/her needs?); 2) access adequacy (answering "no" to each of the following: Trouble finding a specialist? Trouble finding a general doctor/provider? Having the provider's office not accept child's insurance?); and 3) financial adequacy (either answering "no" to: Did your family pay any money for child's care? Or if answering "yes," answering "no" to: Any problems paying any of child's medical bills?). If parental responses indicated insurance adequacy on all 3 measures, the child was deemed to have adequate insurance.

Independent Variables

Our key explanatory variable was the insurance status of enrollees during the 12-month recall period. We also included potentially confounding variables, including child's gender, age, and race/ethnicity; primary language and number of children in the household; parents' highest education level, employment status, and citizenship; and geographical location at the time of sampling (though a series of state-region dummies).

Statistical Analyses

We used binary dependent variables and estimated linear probability models to generate regression-adjusted differences between established CHIP enrollees and recent enrollees who were previously uninsured and who were previously covered by private insurance. We also conducted a number of sensitivity analyses to address possible unobserved differences between recent and established enrollees. We considered different subsets of established enrollees who were more likely to have been uninsured or privately insured before entering the program. We also considered various subgroups of recent enrollees based on their reasons for enrolling and past service use in case their use of health care services during the year before enrollment was atypically high or low. Finally, we tested the sensitivity of our results to including different geographic control variables in the model, which address possible confounding due to differences in local health care markets. The results presented here are robust to these alternative specifications.[13] All analyses used survey weights generated to account for the complex, multistage sampling design of the survey and nonresponse bias.[8]

Results

Characteristics of Established and Recent CHIP Enrollees

Established CHIP enrollees in the 10 survey states represented a diverse population of children primarily living in low-income households with working parents (Online Appendix Table 1). Over half of enrollees (54%) were Hispanic, reflecting the large Hispanic populations in several large sample states. A large majority of enrollees lived in households with incomes less than 150% of the federal poverty level (69%) and with at least 1 working parent (87%). CHIP enrollees were generally healthy, but over one-fourth had at least 1 special health care need and 7% of enrollees had fair or poor parent-reported overall health. The sociodemographic and health characteristics of established CHIP enrollees varied significantly across the 10 states in this study. Compared to established CHIP enrollees, previously uninsured recent enrollees tended to be younger and have lower income, and they were more likely to be Hispanic. Further, compared to established enrollees, recent CHIP enrollees coming from private insurance tended to be younger, in better health, and have more educated parents and higher incomes, and they were more likely to be non-Hispanic white and have parents who were US citizens. Our models controlled for these potentially confounding differences between the treatment and comparison groups

Outcomes Based on Parental Reports for CHIP Enrollees

Here we begin with descriptive findings on how well CHIP is meeting children's health care needs. All findings apply to their experiences in the past year, as reported by their parents.

The parents of 75% of CHIP enrollees felt "very confident" and almost all (96%) felt at least "confident" of their ability to meet their child's health care needs (Table). In addition, the vast majority never/rarely had problems paying medical bills for their child (92%), had no trouble finding a general doctor who would see their child (97%), and had no trouble finding a specialist (94%). Fully 86% of CHIP enrollees had seen a doctor or other health professional in the past year, suggesting that children enrolled in CHIP come into contact with medical providers in outpatient settings at very high rates.

Unmet needs paint a somewhat different picture, however. Almost a quarter (24%) of CHIP enrollees had some type of unmet need, and 12% had more than one. Dental care was

Table. Parental Perceptions of Coverage, Financial Burden, Access, Use, and Unmet Needs of Children in CHIP Compared to Uninsured or Privately Insured Children, 2012 (10-State Pooled, Regression Adjusted)

Characteristic	Weighted Percentage or Percentage Point Difference (SE)		
		Percentage Point Difference Between CHIP and Other Coverage (Regression Adjusted)	
	Percentage of CHIP Enrollees in 10 States (Unadjusted)†	CHIP Versus Uninsured Before Enrollment‡	CHIP Versus Private Insurance Before Enrollment§
Parental perception of coverage and financial burden of child's health care			
Very confident could get needed health care for child	74.9 (0.8)	39.8 (2.5)**	12.1 (2.7)**
Very or somewhat confident could get needed health care for child	95.9 (0.4)	26.6 (2.4)**	4.6 (1.5)**
Never or not very often stressed about meeting child's health care needs	83.6 (0.7)	36.9 (2.6)**	12.5 (2.5)**
No problem paying child's medical bills (or no out-of-pocket costs)	92.0 (0.5)	27.6 (2.5)**	22.7 (2.5)**
Out-of-pocket costs: greater than $0 up to $250	3.3 (0.3)	−4.3 (1.5)**	−1.1 (1.1)
Out-of-pocket costs: between $250 and $2000	3.8 (0.4)	−20.9 (2.21)**	−14.2 (2.0)**
Out-of-pocket costs: greater than $2000	0.6 (0.1)	−0.9 (0.38)*	−6.0 (1.3)**
Provider accessibility based on parent reports			
No trouble finding a general doctor	97.4 (0.3)	11.1 (1.7)**	−0.8 (0.8)
No trouble finding a specialist	94.0 (0.5)	9.0 (2.1)**	−1.1 (1.5)
Service use based on parent reports			
Any doctor/other health professional visit	85.9 (0.72)	19.0 (2.5)**	−0.3 (2.1)
Any specialist visit	21.1 (0.7)	12.2 (1.4)**	2.7 (2.4)
Any mental health visit	7.4 (0.5)	5.6 (0.9)**	2.3 (1.4)
Any emergency department visit	23.0 (0.8)	−2.6 (2.6)	−5.2 (2.6)*
Any hospital stays	4.1 (0.3)	0.2 (0.9)	−5.9 (1.7)**
Unmet needs based on parent reports			
Doctor/health professional care	5.4 (0.5)	−7.2 (1.7)**	1.6 (1.4)
Prescription drugs	6.4 (0.5)	−6.5 (1.8)**	−1.9 (1.7)
Specialists	5.4 (0.5)	−6.3 (1.7)**	−3.4 (1.8)
Hospital care	3.2 (0.3)	−6.5 (1.4)**	−0.1 (1.0)
Mental health care	3.2 (0.4)	−3.0 (1.4)*	−1.1 (1.3)
Dental care	11.6 (0.6)	−12.1 (2.3)**	−0.4 (1.9)
Any unmet need	24.3 (0.8)	−11.9 (2.5)**	2.9 (2.5)
Insurance adequacy			
Benefit adequacy	92.9 (0.5)	NA	7.6 (1.8)**
Provider network adequacy	79.9 (0.7)	NA	−3.7 (2.5)
Financial protection adequacy	92.1 (0.5)	NA	22.7 (2.5)**
Overall insurance adequacy	71.6 (0.9)	NA	13.8 (3.0)**

CHIP indicates Children's Health Insurance Program.

Values are statistically different from CHIP enrollees at the *$P = .05$ or **$P = .01$ level.

Notes: The regression-adjusted differences derived from multivariate regression models control for age, sex; race/ethnicity and language groups, more than 3 children in the household, highest education of any parent, parents' employment status, parent citizenship, and local area or county. Sample sizes differ across outcome indicators due to differences in response rates and survey skip patterns. "No out-of-pocket costs" includes those who indicated out-of-pocket costs but then said they had no problem paying, or later indicated they paid $0 in out-of-pocket costs. USC = usual source of care. Benefit adequacy measure consists of insurance offers benefits/covers services that met needs usually or always. Provider network adequacy consists of no trouble finding a general doctor or provider who would see child, no trouble finding a specialist who would see child, and not told by a provider that they do not accept child's coverage. Financial protection adequacy consists of no out of pocket costs or no problems paying child's medical bills for care in past 12 mo. Overall insurance adequacy consists of having benefit adequacy, provider network adequacy, and financial protection adequacy.

†CHIP enrollees are those continuously enrolled in CHIP for at least 12 mo at time of sampling.

‡Uninsured children had 5 or more months without any coverage in the past 12 mo.

§Privately insured children had 12 mo of private coverage in the past 12 mo.

Source: 2012 Congressionally mandated survey of CHIP enrollees and disenrollees. Survey states included Alabama, California, Florida, Louisiana, Michigan, New York, Ohio, Texas, Utah, and Virginia.

the most frequently cited unmet need. Others included eyeglasses/vision care; prescription drugs; medical tests, treatment, or recommended follow-up care; doctor/professional care; specialist care; mental health care; hospital care; and physical, occupational, or speech therapy. Among CHIP enrollees with an unmet need for prescription drugs, 22% took such a drug less frequently or in a smaller amount than the recommended dosage to make it last longer.

With respect to ED visits, 23% of CHIP enrollees had an ED visit and 7% had multiple visits. Compared to enrollees with 1 or no ED visits, the parents of CHIP enrollees with multiple visits reported worse access to outpatient care on a variety of measures, including more difficulty reaching the child's doctor after hours and getting an appointment for the child.

A subgroup of CHIP enrollees also had difficulty getting specialty care in ambulatory settings (data not shown). Only 5% had an unmet need for specialty care; but of these, 30% had trouble finding a specialist and 41% had an unmet need for a specialist despite having seen at least one specialist in the past year. Only 3% had an unmet need for mental health care; of those, 39% had a prescribed medicine for attention-deficit/hyperactivity disorder. Of those children who had a mental health visit and still had unmet an mental health care need, 41% received mental health care in school, suggesting that for the latter group of children, the parents considered school-based care to be insufficient in quantity, quality, or appropriateness.

Within these overall findings, some subgroups of children enrolled in CHIP had somewhat different experiences (data not shown). Black and Hispanic enrollees had somewhat lower service use compared to white enrollees, and those with no parent who had completed high school had somewhat lower service use than those with a parent who had completed high school. Hispanics whose primary language was Spanish reported lower parental confidence about meeting their child's health care needs, 69% vs 78% of Hispanics whose primary language was English. Among children with no parent who had completed high school, parental confidence about meeting their child's health care needs was lower than among children with a parent who had completed high school, a difference of 67% vs 77%. Children with special health care needs had 2 to 3 times greater unmet need for every type of health service measured compared to children without a special health care need.

CHIP Enrollees Compared to Uninsured Children

According to parental reports, children enrolled in CHIP had better access to care than the pre-CHIP experiences of the children who had been uninsured before enrolling (Table). Comparisons are based on regression-adjusted demographic and socioeconomic differences that control for observed differences between the 2 groups. (For unadjusted estimates of uninsured children, see Online Appendix Table 2.)

Large differences persisted across a range of related outcomes. Parents of CHIP enrollees were 40 percentage points more likely to feel confident that they could meet their child's health care needs than parents of uninsured children. Parents of CHIP enrollees were 37 percentage points more likely than parents of uninsured children to report not feeling stressed about meeting their child's health care needs and 27 percentage points less likely to report having problems paying their child's medical bills.

CHIP enrollees were more likely than previously uninsured children to have received a range of different types of service, including: any doctor or other health care professional (a difference of 19 percentage points), any specialist visit (a difference of 12 percentage points), a mental health visit (6 percentage points), and having any prescribed medicine (a difference of 19 percentage points). CHIP enrollees were also less likely than previously uninsured children to have had an unmet health need (a difference of 12 percentage points) and less likely to have had more than 1 unmet health need (a difference of 11 percentage points). Further, CHIP enrollees were less likely to have had trouble finding a general doctor (a difference of 11 percentage points) or finding a specialist (a difference of 9 percentage points). Because parents are likely to underestimate their child's need for specialty care, these may be underestimates, particularly among uninsured children.

CHIP Enrollees Compared to Privately Insured Children

According to parental reports, CHIP enrollees had generally similar health care use and unmet needs compared to the experiences of privately insured children before their enrollment in CHIP, but experiences differed along other outcomes examined (Table). Unadjusted differences are provided in Online Appendix Table 2.

The parents of CHIP enrollees were 12 percentage points more likely to report feeling very confident that they could meet their child's health needs compared to the parents of children with private insurance. This difference spread across a range of related outcomes, including not often feeling stress in meeting their child's needs (a difference of 13 percentage points) and not having problems paying their child's medical bills (a difference of 23 percentage points).

CHIP enrollees and privately insured children visited health care professionals at similar rates. Compared to privately insured children, however, CHIP enrollees were more likely to have had a medicine prescribed (a difference of 8 percentage points) and less likely to have had a hospital stay (a difference of 6 percentage points). They were also less likely to have had an ED visit (a difference of 5 percentage points), suggesting that CHIP enrollees were less likely to rely on the ED for care than children with private insurance. CHIP enrollees and privately insured children had similar levels of unmet care needs.

With respect to health insurance adequacy, the parents of CHIP enrollees were more likely to report that their child had "adequate insurance" than privately insured children. Adequacy of access was high and similar for the 2 groups (at about 80%). But parents of children with private coverage were 23 percentage points less likely to report perceptions consistent with financial adequacy compared to the parents of CHIP enrollees.

DISCUSSION

These findings are consistent with prior research indicating that children enrolled in CHIP have substantially better access to care compared to uninsured children. CHIP parents were much more likely to feel confident in meeting the child's health care needs. CHIP enrollees were more likely than uninsured children to receive a range of different types of service, including specialty and mental health visits, and prescription drugs; much less likely to have unmet needs for care; and less likely to have trouble finding providers. CHIP parents also had fewer problems paying their child's medical bills than parents of uninsured children.

The comparison of CHIP enrollees with privately insured children shows that the 2 groups were similar in health care use, except for prescription medicines, which were more frequent among CHIP enrollees, and ED care, which was less frequent among CHIP enrollees. The unmet need patterns for these 2 groups were similar.

Although most access and service use measures were comparable, children with private insurance had higher out-of-pocket costs, and their parents reported more trouble paying the child's medical bills. The lower financial burdens reported in CHIP may well be contributing to differences reported by these 2 groups of parents in confidence of paying for care (higher for CHIP enrollees) and stress associated with meeting the child's needs (lower for CHIP enrollees). The children with private coverage studied here had that coverage through a parent's employer or through the individual market that existed before the reforms introduced under the Affordable Care Act (ACA). As ACA implementation continues, and as more families enroll in private coverage through the marketplaces, it will be important to monitor access to care and financial burdens for children, especially if families choose less comprehensive plans with higher out-of-pocket cost sharing to save money on premiums.

This study has 2 key limitations. First, the estimates rely on parental reports of access to and use of care and financial burdens associated with children's care, and they do not verify either the receipt of care or out-of-pocket health care costs. Previous research has demonstrated that self-reported data are subject to both under- and overreporting.[14] Second, despite the sensitivity analyses described above, estimates comparing CHIP experiences to uninsured or privately insured experiences may not be indicative of intrinsic differences as a result of possible unobserved differences between CHIP enrollees and the comparison groups. Despite the potential limitations, the findings presented here provide key information about children's access to and use of care in CHIP and compared to being uninsured or privately insured.

Our findings strongly suggest that efforts to enroll more of the uninsured children who are eligible for CHIP will improve their access to care as well as reduce their parent's financial burden of meeting their health care needs. However, the findings also highlight the need to better understand the factors contributing to the remaining unmet needs of CHIP-covered children. Although most CHIP enrollees do not have greater unmet needs than similarly situated privately insured children, the fact that 1 in 4 CHIP enrollees has at least 1 unmet need indicates room for improvement in the access to care both for CHIP enrollees and for children who are privately insured.

Perhaps most importantly, the findings reported raise concerns about the implications of allowing CHIP funding to expire in September 2015, under the assumption that children currently eligible for CHIP would be eligible for federally subsidized marketplace coverage. There are 2 main concerns. First, some children currently enrolled in CHIP may become uninsured because their families may not qualify for subsidies to purchase marketplace coverage if they have a parent who is offered affordable employer-sponsored insurance.[15] Second, children with private coverage often face higher financial burdens than those with CHIP coverage. CHIP is a critical piece of the public and private coverage options available to children and families, contributing to the goal of giving children access to affordable and high-quality care.

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SUPPLEMENTARY DATA

Supplementary data related to this article can be found at http://dx.doi.org/10.1016/j.acap.2015.02.007.

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