The process of National Health Insurance coverage for Chuna Manual Therapy in Korea: A qualitative study

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A R T I C L E   I N F O

Article history:
Received 18 October 2020
Revised 13 May 2021
Accepted 16 May 2021
Available online 26 May 2021

Keywords:
Chuna Manual Therapy (CMT)
National Health Insurance (NHI)
Multiple Streams Framework (MSF)
Traditional Korean Medicine
Qualitative study

A B S T R A C T

Background: Chuna Manual Therapy (CMT) has been widely used in Korea, and coverage in Korean National Health Insurance (NHI) was finally implemented in 2019. The objectives of this study were to analyze the process of NHI coverage for CMT qualitatively, and to summarize important roles, streams, and implications regarding its inclusion in the modern public health insurance system.

Methods: Related literature was collected and 8 key personnel involved in the policy-making process were qualitatively interviewed, and Zahariadis’ version of the Multiple Streams Framework (MSF) was applied to analyze the policy agenda setting and the roles of stakeholders.

Results: Through the collaborative efforts of various stakeholders, a pilot coverage project for CMT was implemented in 2017, and coverage was expanded nationwide in 2019. MSF showed that it was mainly achieved through three streams: governmental change (political stream), demand from the general public and KM doctors (problem stream), and strengthening/reinforcement of the feasibility and acceptability of the policy (policy stream). Also, the roles of policy entrepreneurs and resulting changes were shown to be significant for the overall process.

Conclusion: NHI coverage for CMT was realized through collective policy and research efforts from the government and academic sectors. The roles of stakeholders were shown to be significant in the overall process, and documentation of their involvement is hoped to be of use of other countries that utilize traditional and/or manual medicine.

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1. Introduction

Chuna Manual Therapy (CMT) is a treatment method in which Korean Medicine (KM) doctors use hands, any body parts, or assistive devices to apply stimulus to treat and prevent diseases by adjusting joints, muscles, ligaments, and the nervous system or correcting malaligned skeletal structures. In Korea, CMT is included in the Korean classification of procedures in KM and used by traditional KM doctors in KM hospitals/clinics to manage diseases, especially those of the musculoskeletal and nervous systems. While it shows high levels of correlation to the Tuina techniques currently used in mainland China and Taiwan, CMT has since evolved into a unique manual therapy by integrating more functional anatomy and high velocity thrust techniques which differ from traditional Tuina techniques.

Due to the nature of mainly dealing with musculoskeletal diseases, CMT began to be covered in the car insurance medical benefits in 2005, and the use of CMT was further expanded in Korea. With increasing use of CMT, patients’ demand for the National Health Insurance (NHI) to cover CMT had increased. NHI in Korea reimburses expenses of acupuncture, moxibustion, cupping and some herbal medicines since 1987, and the number of NHI claims for KM kept expanding with one hundred million annual claims filed by KM institutions in 2019. However, there were not many
cases of KM treatments that were newly covered in the NHI due to the strict registration review procedure based on scientific evidence.7

Based on the efforts to accumulate clinical evidence by the Korean Society of Chuna Manual Medicine for Spine and Nerves (KSCMM), continuous requests and negotiations with the government by the Association of Korean Medicine (AKOM), CMT was included in the government health insurance plan in 2015. It was introduced as a pilot project and finally included in NHI coverage as of 2019. KM practices such as acupuncture and moxibustion had previously been included in NHI coverage based on rather cultural and political decisions, whereas CMT was the first case to undergo the rigorous NHI coverage procedure based on evaluation of clinical evidence of effectiveness and safety in Korea.

Therefore, as CMT is the first KM practice to be included in the NHI following rigorous assessment of evidence including pilot project studies through the collaborative efforts of various stakeholders, this study describes the brief history of CMT coverage in the NHI and summarizes its sociopolitical implications. The aims of this study were to: (1) review the literature and conduct interviews with key personnel involved in the policy-making process, (2) analyze the decision-making process of public policy and organizational choice of CMT coverage using Zahariadis’ model of the Multiple Streams Framework (MSF), and (3) be of reference to other countries in expanding utilization of traditional medicine in the modern healthcare system.

2. Methods

2.1. Data collection

In order to comprehensively collect information on the process of CMT inclusion in NHI coverage, we used the following two methods: a literature search and interviews.

First, literature related to CMT inclusion in NHI coverage were widely collected and analyzed. We systematically searched for official announcements, policy reports, meeting documents and press releases from government-run websites (https://www.mohw.go.kr/), KM specializing newspapers (https://www.akomnews.com/; https://www.mjmedi.com/), and the main portal sites used in Korea (https://www.google.com; https://www.naver.com) published up to 8 April 2019. The search words were Chuna, CMT, NHI coverage for CMT, and car insurance coverage for CMT. The references for relevant publications were hand-searched, and we requested internal documents related to NHI coverage for CMT, including both official and unofficial data, from KSCMM (http://www.chuna.or.kr), AKOM (https://www.akom.org/), and Health Insurance Review and Assessment service (HIRA, https://www.hira.or.kr). Although there were no language limitations, almost all documents were in Korean. The collected literature was screened by two researchers (HMK, EHH) individually for all searched references, and the process of NHI coverage for CMT and involvement of various sectors was organized in chronological order and assessed for significance. Disagreements were resolved through discussion, and in cases where agreement could not be reached, the opinion of a third researcher was sought (JYE).

Second, we conducted focused interviews with various individuals associated with groups that participated in the NHI coverage inclusion process: (1) the Ministry of Health and Welfare (MoHW), and (2) HIRA in the government sector, and (3) KSCMM and AKOM in the private/academic sectors. We selected participants from individuals who had worked in the corresponding tasks of each group. We also used the snowball sampling method that includes additional interviewees suggested by initial participants. Through the interviews, we wished to understand the situation and interactions, to consider the interests and positions of various interest groups, and to examine the CMT coverage in the NHI from various angles. All interviews were conducted by at least 2 experienced interviewers who were knowledgeable of the overall process of NHI coverage for CMT, and interview questions focused on elucidating the sociopolitical circumstances and influence exerted by stakeholders. The interviews were recorded, transcribed, and analyzed according to a pre-determined format. Also, it approved by the institutional review board of Pusan National University (PNU IRB/2019_48_HR, May 16, 2019).

A total of eight subjects participated in in-depth interviews. Their affiliations and interview topics are listed in Table 1.

Based on the data collected above, the process of CMT inclusion in NHI coverage was divided into four periods and the main events are chronologically reported in section 3.1, and section 3.2 describes the systematic analysis of the process of CMT inclusion in the NHI using a theoretical model.

The period we focused on is the 25 years from 1995, when KSCMM was established, to 2019, when the main project of NHI coverage for CMT was implemented. We also divided it into four periods: CMT grew in popularity based on the establishment of KSCMM and its organizational activities during the first period (1995–2011). KSCMM and AKOM, the main actors in this period and part of the private sector, began to propose the coverage of NHI for CMT to the government and continuously accumulated evidence during the second period (2012–2013). CMT was included in the national plan for NHI coverage reinforcement and the government started to formulate a policy for implementation during the third period (2014–2016). The main project of coverage of NHI for CMT following the pilot project was implemented during the fourth period (2017–2019).

2.2. Theoretical framework

In order to systematically analyze the case of CMT coverage in the NHI in Korea, we used the MSF developed by Kingdon.9 The MSF is considered to provide the significant conceptual insight for understanding policy process and agenda-setting through three separate streams (problems, policies and politics)10 to explain the connection between a problem getting attention and the adoption of a feasible solution. Zahariadis built on Kingdon’s work suggesting a model where policy changes are predicted to occur when problem, politics, and policy streams that flow independently in society are united by a policy entrepreneur.11 Unlike Kingdon’s view of coincidental opening of policy windows, Zahariadis argued that a political entrepreneur’s matter of preference could promote the union of the three streams. Zahariadis also attempted to generalize the process of policy formation by including processes starting from setting policy agendas to the implementation stages.12 Since the CMT coverage in the NHI had political entrepreneurs that played integral roles and collectively dealt with agenda setting and policy-making processes, we performed analysis using Zahariadis’ perspective.

Therefore, we analyzed how the type, role, and strategy of political entrepreneurs changed, and such changes influenced policy output during the process of CMT inclusion in NHI coverage along with the flow of policy issues, politics, and proposal of alternative options.

3. Results

3.1. Data analysis - Analysis by period

3.1.1. Promotion of CMT and its inclusion in car insurance medical benefits (1995–2011)

After establishment of KSCMM, an academic organization initiated by Dr. Joon-shik Shin in 1991, KSCMM undertook various
academic activities including publication of textbooks and Clinical Practice Guidelines for Chuna Manual Medicine (CMM), and production of video materials on CMM for standardized education and training of KM doctors in 1995, with the long-term goal of institutionalizing CMM and its inclusion in health insurance.

Through the training and educational activities of KSCMM, the number of KM doctors that offered CMT increased: 50 participants completed the instructors’ course in 1995; and a total of 1,302 participants completed the training course by 2004.13 Marking the 10th anniversary of the training program’s establishment, KSCMM published Chuna Manual Therapy Clinical Practice Guideline for Whiplash Injury Associated Disorders.15 This guideline provided a framework for KM doctors with which to manage traffic accident patients with CMT.

Based on the increasing trend of treating traffic accidents with CMT, in 2004, AKOM submitted a written opinion on the inclusion of CMT in the car insurance medical benefits to the Ministry of Land, Infrastructure and Transportation (MoLI) which regulates the fee schedule for the treatment for traffic accidents covered by car insurance. Although MoLI has relatively strict control over the level of medical fees for car insurance, the scope of covered practices tends to follow the opinions of insurance companies, and insurance companies set the benefit package according to the needs of insurance consumers. Hence, car insurance medical benefits tend to be more flexible in setting the range of coverage items compared to the NHI.15 With a high consumer preference for CMT in treating pain associated with the aftereffects of traffic accidents, including motor function disorders,16 the Auto Insurance Medical Fee Review Council, delegated by MoLI, set the medical expenses of CMT in car insurance similar to that of medical manual therapy fees, and officially announced them in April 2005.

According to BC S, car insurance medical benefits offered coverage to a fixed amount for each practice without taking the expertise required for CMT or the severity of patients’ injury into account. Also, as the covered medical expenses fell short of prevailing fees, coverage of CMT by car insurance was not entirely welcomed in the initial stage by many KM doctors who practiced CMT. AKOM and KSCMM continuously submitted improvement schemes to MoLI from the inception of CMT in the car insurance. While these propositions did not reach fruition, the provision of CMT had gradually increased, and in 2014, 41.1% of total KCM clinics submitted claims for CMT in the car insurance.17

### 3.1.2. KM community’s efforts for CMT coverage (2012–2013)

Car insurance covered only the expense of CMT for car accident patients, so many patients with non-traumatic musculoskeletal diseases had to pay for CMT treatment out-of-pocket. There has accordingly been a steady public demand for CMT coverage in the NHI.4, 6, 18

According to interviewees, however, most members of KSCMM, which was the main driving force for expansion and growth of CMT, expressed concerns regarding coverage of CMT in the NHI: if medical expenses of CMT were covered by the NHI and KM doctors who had not undergone advanced CMT training provided CMT, the quality of practice could potentially be devalued. Also, if CMT were included in NHI coverage at a time when car insurance medical fees for CMT were low, there was the possibility that an appropriate level of CMT fees would not be guaranteed in the NHI.

Table 1

| Interviewee/ Affiliation | Topic | Role in the inclusion of CMT in NHI coverage |
|-------------------------|-------|---------------------------------------------|
| JS J | KSCMM | Early development of CMT and KSCMM | • established the educational training and clinical system of CMT |• organized the KSCMM to promote CMT and educate KM doctors for more professional implementation of CMT |
| BC J | KSCMM | The position and academic role of KSCMM during the inclusion process of CMT in the NHI coverage | • formed the organizational power of KSCMM to include CMT in NHI coverage: organized department of NHI coverage for CMT in KSCMM, and accumulated evidence for effectiveness and safety of CMT |• provided academic advice and presented evidence in the inclusion process of CMT in the NHI |
| EK L | AKOM | The position and political role of AKOM during the inclusion process of CMT in NHI coverage | • gathered KM doctors’ opinions about coverage of NHI for CMT such as medical fees, and represented majority opinions |• requested that the government cover CMT in the NHI and mediated between the government and KM community, especially regarding provider qualifications and financial issues |
| WG L | AKOM | The specific alternatives suggested by AKOM during the inclusion process of CMT in NHI coverage | • represented KM community’s opinions and negotiated financial issues with the government by providing various alternative options |• participated in drawing the final draft for the nationwide coverage of CMT in the NHI |
| BH C | Korea Institute of Oriental Medicine | Recollection of internal situations in the MoHW during the initial of CMT inclusion in NHI coverage in 2014 by a delegate from the ministry | • worked in MoHW as a dispatched worker and participated in the initial process of coverage of CMT in the NHI in 2014 (where the leadership of the policy was transferred from private sector to government) |• organized an advisory council and held meetings for revision of the pilot and main projects of CMT to be more feasible |• negotiated issues such as finance and provider qualifications with the KM community and revised the policy to serve the government’s purpose |
| SH J | HIRA | The position and role of health insurance organizations during the inclusion process of CMT in NHI coverage | • has provided CMT to patients for about 15 years and participated in the pilot project as a CMT provider |• received opinions directly from patients and KM doctors during the pilot and main projects |
| TG J | KM clinic | Awareness of the CMT inclusion in NHI coverage among general KM doctors | • |
In 2012, Dr. Byung-Cheul Shin, the newly appointed president of KSCMM, changed the existing policy to include CMT in the NHI for long-term development of CMT and contribution to public healthcare, and succeeded in convincing the board members. Then he made efforts to strengthen the rationale for CMT coverage in the NHI by designating an overseeing organization (policy research team) and accumulating clinical evidence that were supposed to be required in the NHI coverage decision process. As one of the results of those efforts, A Report on the Study on the Clinical Effectiveness of Chuna Manual Therapy was published, which provided comprehensive data on the current evidence of safety and effectiveness of CMT. To standardize techniques, KSCMM technically classified CMT into three categories; Simple, Complex, and Special Chuna based on the level of difficulty of technique and safety, which served as important standards during the inclusion process.

Before KSCMM changed its position on CMT coverage, AKOM had already considered CMT as a candidate for NHI benefits, and explored the possibility of CMT coverage. With KSCMM’s change in position, AKOM had secured a foundation for academic support in promoting CMT coverage in the NHI, and started to discuss it with the Bureau of traditional KM in MoHW.

3.1.3. Transition to government agenda and decision of pilot project for CMT coverage (2014–2016)

From 2013, the Korean government tried to ease the various regulations to promote industry growth in many areas, including economic, social, and public health sectors. One of the tasks undertaken in the public health area was expansion of NHI coverage, and the MoHW surveyed each medical organization for candidate procedures for NHI benefits. It was a good opportunity for KSCMM and AKOM who had already started to prepare for the coverage process of CMT.

KSCMM and AKOM submitted a request for CMT coverage in the NHI to the MoHW attaching the documents that included CMT utilization data, research articles on CMT effectiveness, customary prices of CMT, and financial estimates of CMT coverage. In 2014, the Health Insurance Policy Deliberative Committee (HIPDC) under the MoHW reviewed the documents submitted by KSCMM focusing on whether the evidence for effectiveness and safety of CMT was sufficient, CMT procedures were standardized, and CMT was educated in undergraduate KM courses. The HIPDC asked for supplementary data on the classification and standard procedures of CMT and educational status of CMT in the colleges and the School of Korean Medicine to KSCMM and AKOM, and the required data were promptly prepared and submitted. Finally, in February 2015, CMT was included in ‘The Mid-Term Health Insurance Coverage Plan’ that was established by MoHW via resolution of HIPDC. The plan stated that “The pilot project of CMT coverage for musculoskeletal diseases shall be conducted, and, after the evaluation of validity of the pilot project, CMT shall be covered in the NHI step by step.”

In Korea, new drugs or procedures that are intended to be listed on the NHI undergo a pilot project in order to evaluate feasibility, cost, adverse event, etc. and improve upon the project design. In case of CMT coverage, the CM community strongly opposed to cover CMT in the NHI citing lack of clinical evidence. According to interviewees, despite the opposition of the CM community, officers of health insurance in the MoHW were in such a position that CMT coverage was necessary. To alleviate the backlash of doctors, the MoHW decided that CMT coverage should go through a 2-year pilot project to provide clinical evidence in real world settings and to address its limitations.

To lend support to the CMT coverage policy, in 2015, the Bureau of traditional KM in the MoHW included the task of CMT coverage in ‘The 3rd National development plan for Korean Medicine (2016–2020)’, and supported a research program titled ‘Clinical research of evidence creation for Chuna manual medicine: effectiveness, safety, and economic evaluation’.

During the process of including CMT in NHI coverage as a government agenda, the collaborative efforts of KSCMM and AKOM took effect. Standardization of practice was of particular importance in the decision process of NHI coverage, and KSCMM had already met global standards on education and safety guidelines by joining an international organization on manual medicine, Fédération Internationale de Médecine Manuelle (FIMM, www.fimm-online.com). Also, KSCMM had funded A study on the design of pilot project for CMT coverage in the NHI which analyzed number of CMT utilization, calculated physician’s work value and practice expense that were necessary to determine resource-based relative value scale (RBRVS) scores of insured CMT, and estimated the budget required. In Korean NHI, fees of procedures reimbursed to medical providers are notified as RBRVS scores. AKOM also played a part in promotion of policy by emphasizing the rationale for CMT coverage in the NHI through meetings with related departments under MoHW until the CMT coverage policy was included in the national plans for NHI coverage and KM development. Close cooperation between AKOM and KSCMM provided strong initiative with which the pilot projects of CMT coverage was implemented.

3.1.4. Implementation of pilot project for CMT coverage and expansion to nationwide program (2017–2019)

In August 2016, the HIPDC formed an advisory panel for the design of the pilot project of CMT coverage. The panel consisted of government side officials (MoHW and HIRA) and members of AKOM and academic societies. The details of the pilot project were established over the course of 9 meetings until February 2017. The topics discussed during the meetings include definition and classifications of insured CMT, selection of target diseases based on evidence, selection of participating KM organizations, education as a prerequisite and determination of RBRVS scores, etc.

On February 13th, 2017, the pilot project was launched in 65 KM hospitals and clinics (15 hospitals and 50 clinics) across the country. Since one of the purposes of the pilot project was to evaluate the effectiveness of CMT, applicant providers for the pilot project were screened for their proficiency in CMT. CMT fees were set according to difficulty of procedure, and patients with musculoskeletal diseases paid only 30% and 40% of total expense of CMT treatment in the KM clinics and hospitals, respectively. As CMT was offered at a lower price (covered 70% to 60%, respectively), the number of patients visiting KM medical institutions during the pilot project period increased.

During the pilot project period, HIRA commissioned a study on the performance evaluation of the pilot project to Korea Institute of Health and Social Welfare (KIHASA) and the School of Korean Medicine, Pusan National University. In March 2018, A study on the Evaluation of Pilot Project for NHI coverage of CMT was published, and it provided data on the effectiveness of CMT in the real clinical setting, analysis of claims from KM hospitals and clinics, and financial budget estimates for nationwide expansion of CMT coverage. The real clinical data from the pilot project showed that CMT was effective in improving the functional disorders of patients with chronic back pain, and the satisfaction of KM doctors and patients who participated in the pilot project was high (85.2%, 92.8%, respectively). Based on the evaluation study results, MoHW and HIRA started to prepare for expansion of NHI coverage of CMT into a nationwide program.

Meanwhile, the budget for nationwide CMT coverage was estimated based on the number of patients in the pilot project, and due to the high response of patients to CMT pilot coverage, the estimated budget exceeded what the officials of MoHW had expected. Solving the financial problem became a key issue for nationwide expansion of CMT coverage in the NHIC according to WG.
L, and EK L. After AKOM leadership was replaced in March 2018, AKOM proposed several solutions on how to reduce spending associated with CMT coverage, such as increasing patient’s coinsurance rate from 30% to 50%, restriction of number of CMT sessions provided per doctor per day, and restriction of the number of CMT sessions received per patient per year. As these solutions reduced the budget to within expected ranges, HIRA and the Bureau of traditional KM established detailed action plans to expand CMT coverage nationwide. The final draft for CMT coverage expansion passed the HIPDC in November 2018, and CMT coverage in the NHI officially commenced at April, 8, 2019. (Fig. 1)

Meanwhile, an unexpected problem arose due to NHI coverage of CMT. In principle, fees for car insurance medical benefits should be set the same as fees in NHI for the same procedures. The costs of CMT in the NHI was computed systematically based on the resource use mentioned above, and it was set higher than the cost in car insurance, which was known to be devalued. As car insurance would need to apply equal fees for CMT as that of the NHI, it was obvious that the expenditure of car insurance companies would increase. Therefore, a number of restrictive clauses were added to car insurance policies for KM benefits with the official initiation of CMT coverage in the NHI, which provoked negative opinion among some KM doctors about NHI coverage.31

The CM community also protested against CMT coverage and argued that CMT coverage in the NHI was not based on scientific evidence or cost-effectiveness analysis, but rather the result of political negotiations between the government and KM doctors. The Korean Medical Association and the Korean Association of Orthopedic Surgeons pressured the government through organized movements such as public announcement of objections and one-person relay demonstrations.32

However, CMT coverage in the NHI has been introduced successfully despite external opposition because it had been prepared through long-term efforts of the KM community through accumulation of clinical evidence for safety and effectiveness, and establishment of standardized training programs and techniques. As a supporting external factor, there was also high public demand for CMT coverage in the NHI in Korea.32,33

3.2. Theoretical framework - Analysis of policy-making process based on Zahariadis’ Multiple Streams Framework model

3.2.1. Problem stream

People come to view a situation as a “problem” based on its discrepancy with their desired state of affairs.34 Such prob-
lem streams can be understood through indicator, focusing events, crises, and feedback from existing programs. First, problem awareness was identified in the public and the KM community through the following indicators. According to data that investigated public awareness on use of KM services, there was high satisfaction with CMT and demand for CMT coverage in the NHl. Also, with regards to the CMT use investigated by AKOM in 2014, 10% of KM institutions offered CMT and approximately 3,423,000 CMT sessions were provided annually. A 2015 study suggested that 87% of KM doctors who currently did not practice CMT would consider its practice once it was included in NHl coverage. These results reflect public demand, and KM doctors’ willingness to administer CMT treatment more if CMT were covered, implying that the public and KM community were aware of the problems concerning lack of NHl coverage for CMT.

Meanwhile, feedback from inclusion of CMT in car insurance coverage in 2005 reinforced the problem stream. While car insurance coverage contributed to the growth of CMT use, the level of compensation for CMT in car insurance had been an ongoing problem for the KM community. Additionally, the pilot project for CMT coverage carried out by 65 KM hospitals and clinics in 2017 marked a focusing event. With the rapid increase in the number of patients using CMT in the pilot project, the introduction of a nationwide program raised concerns about fiscal surge, and the government came up with a solution to prevent overspending. The feedback from the pilot project had direct effects on the implementation of official CMT coverage in the NHl.

3.2.2. Political stream
The political stream comprises such things as swings of national mood, vagaries of public opinion, election results, changes in administration, shifts in partisan or ideological distributions in Congress, and interest group pressure campaigns. As for CMT coverage in the NHl, a political stream was formed by government replacement and continued efforts of interest groups.

In 2017, as soon as liberal President Jae-in Moon was elected in South Korea, he promoted a policy of expanding coverage of state-run NHl called ‘Moon Care’. ‘Moon Care’ was a policy that was supported by patients and the public because it aimed to drastically reduce out-of-pocket medical expenses. The CM community, which supported the conservative government, opposed it, saying that ‘Moon Care’ would force doctors to provide under-reimbursed treatment, but, for KM doctors, a friendly political environment was established in which herbal medicine and KM treatments could be newly included in the NHl. Although a pilot project for CMT coverage was undertaken, its nationwide coverage was not finalized. Due to the climate created by ‘Moon Care’ promotion, the MoHW actively sought solutions to obstacles to official CMT coverage in the NHl and implemented them, despite strong opposition from the CM community.

AKOM served as an expert group that relayed opinions from the KM community to the government advocating realization of benefits for KM doctors. Since 2005, it has continued to submit improvement schemes for medical expenses of CMT in the car insurance and requested that CMT be covered in the NHl to the government. Also, it made efforts to minimize practice restrictions of KM doctors during the process of settling the final draft of official NHl coverage. In particular, with regards to finance issues, AKOM proposed acceptable solutions to control CMT expenditure. Such proposals and flexibility of AKOM in negotiation played a vital role in the implementation process of CMT coverage.

3.2.3. Policy stream
Proposals that meet standards such as technical feasibility, value acceptability, and budgetary stringency, are more likely to survive than those that fail to meet such standards. Technical feasibility refers to relative ease in executing a political alternative, which could be considered the most important criterion. Value acceptability refers to the extent to which a political alternative matches the values of the policy community. Budgetary stringency refers to finances that need to be invested over a considerable amount of time or have to be reduced in size in the case that a policy is implemented. CMT coverage in the NHl was able to be selected among other alternatives, as it met the three requirements listed above. For technical feasibility, KSCMM had accumulated clinical evidence of safety and effectiveness of CMT, standardized the CMT procedures, and designed a detailed plan of pilot coverage that included selection of hospitals and clinics, computation of appropriate costs for CMT, and estimation of financial impact.

For value acceptability, CMT had been widely used for patients with musculoskeletal diseases and there had been a public demand to include CMT in NHl coverage. Nevertheless, it faced strong opposition from CM doctors, which ran the risk of creating problems in value acceptability in the political community. Since many KM doctors in Korea compete with KM doctors in the medical market, especially at clinic-level, they have been using various media, academic, and political powers to oppose listing KM practices for insurance coverage. Such opposition could only be overcome through clinical evidence of CMT and public support.

For budgetary stringency, as mentioned earlier, AKOM and the government agreed to set higher coinsurance rates for CMT, which made it possible to expect an acceptable range of expenditure.

3.2.4. Policy window and policy entrepreneur
A combination of the three streams mentioned above opened a policy window via the HIPDC held on November 29, 2018. Upon passing the deliberation, the final policy for the CMT coverage in the NHl was finalized.

In this process, policy entrepreneurs played a significant role. A policy entrepreneur refers to a person or group that utilizes available resources to shape policies in the direction of its expectations. A successful policy entrepreneur has high accessibility to policymakers, is able to invest many resources including time, money and energy for desired changes in policy, and to implement strategies to integrate streams. The role of a policy entrepreneur is divided into advocacy and brokerage, the main strategies for which include framing, affect priming, salami tactics, and utilization of various symbols.

In the process of CMT insurance coverage, policy entrepreneurs changed from private to public, and from government departments to working groups. The reason that CMT insurance coverage implementation succeeded was that such changes occurred with continuity. According to Zahariadis, not all policy entrepreneurs successfully lead change in policy. CMT insurance coverage successfully transitioned into a policy because the most appropriate policy entrepreneur at each stage led the stream, which led to connectivity and continuity.

Before NHl coverage of CMT had been set as a national agenda, AKOM and KSCMM worked together to lead efforts to develop alternatives. However, policy-making in the private sector is bound to meet limitations as it belongs in the public realm. Their leadership gained a strong driving force with support from the Bureau of traditional KM in the MoHW, which resulted in the selection of CMT insurance coverage as a national agenda. AKOM, KSCMM and the Bureau of traditional KM in the MoHW can be considered policy entrepreneurs as they served the roles of advocacy and brokerage. They employed framing as a strategy which used the public tendency to avoid loss by drawing attention to how lack of coverage for KM practices increased social burden and limited accessibility.
The most decisive and ultimate political entrepreneur was HIRA, which was able to lead the policy output through framing strategy and progressive negotiation tactics. It ensured that the policy adhered to plans similar to what it envisioned by implementing a pilot project prior to the main project and dominating negotiations with the KM community in the process of finalizing proposals for the main project. The completed policy alternative satisfied all criteria including technical feasibility, value acceptability, and budgetary stringency mentioned in policy stream. As a result, the CMT coverage in the NHI was able to pass HIPDC (Fig. 2).

4. Discussion

This paper summarized the process of CMT coverage in the NHI and utilized theoretical framework to draw sociopolitical implications explaining the transition from a problem receiving attention to the adoption of a meaningful and impactful solution. The process of CMT coverage in the NHI can be considered a meaningful example of successful change of government policy through public/academic support with implications for other countries of comparable circumstances.

Based on the results of our research, the process has the following implications for other countries looking to expand utilization of traditional medicine in the modern healthcare system: first, there is need for academic support that can systematically build clinical evidence on targeted treatment modality. The main role of KSCMM in CMT coverage in the NHI was reconstructing traditional manual techniques with modern adaptations, through which CMT was able to be recognized as a new treatment technique in KM. Through integration of various effective practices from Korea and overseas while minimizing risks, Korean CMT has developed unique features that brought about its domestic popularity and global re-exportation. Hence, CMT can be considered an exemplary case of modernization of traditional medical practice. It also shows that high efficiency based on social needs with sustained attention must be established for continuance of existing traditional medical practices. Furthermore, KSCMM actively employed its organizational power by providing academic support, including classification of practices, standardization of techniques, accumulation of scientific evidence, and systematic training of experts, all of which were essential for inclusion in NHI coverage. In order to meet government requirements in a timely manner, adequate internal preparations need to be made. However, it is difficult without joint efforts at the organizational level.

Second, there needs to be a pivotal figure and political bargaining power to earn support from the general public and interest groups. AKOM represented the needs of the general public and the KM community by advocating the need for CMT coverage in the NHI to the government. During the inclusion process, it negotiated the opinions of the KM community and the government. While complying to government demands, AKOM also tried to come up with a way to minimize restrictions on the practices of KM doctors. Specifically, the 100-hour training program for providers suggested by the government was considered to be in need of modification as it limited the practice scope of KM doctors who had already completed CMT training during their undergraduate education. Consequently, AKOM conceived a negotiation proposition for the government through proposal of an interface that could solve both financial and qualification standard problems. Also, KSCMM and AKOM worked together during the inclusion process to devise a negotiation strategy that covered academic, technical, institutional, and administrative areas and enabled strategic negotiation. Such collaborative efforts between healthcare providers’ representative association and relevant academic societies are an essential factor and process to secure the support of healthcare providers and viable solutions within the window of opportunity.
Third, the government’s driving force and will for policy implementation is vital for inclusion of new items in NHI coverage. CMT coverage in the NHI began once KSCMM and AKOM realized related public needs. After the bureau of traditional KM in the MoHW recognized demand and began promotion, it was selected as a national agenda. The policy output was finalized as practical work groups took on the policy-making process. HIRA, which played the most decisive role in policy output, requested various evidence and additional data from the KM community during the process of devising pilot and main projects for CMT coverage in the NHI, reflecting the will of the government. Since government’s will stems from the people, comprehensive understanding of public needs and making justifiable proposals are warranted to further include other practices in the future and for other medical disciplines.

While this study holds significance in that it details the process through which a traditional KM practice was incorporated into the modern health insurance system and its implications, the following limitations need to be taken into account. First, among the interviewees, individuals from the government (MoHW) who played an important role during the CMT coverage in the NHI were excluded due to practical reasons. We tried to compensate for the exclusion by collecting related literature such as meeting minutes and interviewing meeting participants to reflect their opinions. Second, while some civic groups were involved in the inclusion process of CMT in NHI coverage during the decision stage, their opinions were not directly addressed in this study. However, as their perspectives would be incorporated into social needs, they should be indirectly reflected in public opinions such as surveys and interviews. Third, there is possibility of selection bias in interviewee selection, although key individuals who had worked in corresponding tasks were identified without prior information.

CMT coverage in the NHI in South Korea was the first case of a KM procedure that went through the formal NHI coverage process for new technologies requiring clinical evidence on safety and effectiveness through coordinated efforts of providers, academic societies and the government. It may be considered a successful model for other countries where considering the management and use of modernized traditional medicine in public health insurance systems.

Acknowledgments

We appreciate all interviewees who provided information and data on Chuna Manual Therapy coverage for our manuscript.

Author contributions

Conceptualization: LB, SB and YJ. Methodology: LB, YJ, KH, HE and SB. Validation: VJ, SB, LJ, KM and LB. Data Curation: VJ and LB. Investigation: LB, YJ, KH and HE. Resources: SB, LB and LJ. Writing – Original Draft: YJ, KM and LB. Writing – Review & Editing: VJ, SB, LJ, HE, KH, KM and LB. Visualization: VJ and SB. Supervision: LB. Project Administration: VJ and LB. Funding Acquisition: SB and LB

Conflict of interests

The authors have no conflict of interests that are directly relevant to the content of this manuscript.

Funding

This research was supported by the Korean Society of Chuna Manual Medicine for Spine and Nerves (KSCMM) in 2019.

Ethical statement

This research has been approved by the institutional review board of Pusan National University (PNU IRB/2019_48 HR, 2019. 05.16).

Data availability

The data associated with this manuscript will be made available upon reasonable request.

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