



Research Article

Report and Analysis of Funding Situation by NSFC for Research Projects on Acupuncture and Moxibustion Science during the 12th Five-Year Plan

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Abstract

The 12th Five-Year Plan outline (2011-2015) of the National Economy and Social Development of the People's Republic of China is referred as 12th Five-Year Plan. This paper analyzed and summarized the approved funded projects on approval of acupuncture and moxibustion science by the National Natural Sciences Foundation of China (NSFC) including the total number of the funding projects, the distribution of the total funding capital, funding categories and the main research content of acupuncture and moxibustion science during the 12th Five-Year Plan (2011-2015). During the "12th Five-Year Plan", NSFC funded 499 study projects of acupuncture and moxibustion. The research categories involved meridian collaterals, acupoint theory, acupuncture techniques, acupuncture effects and mechanisms of acupuncture therapy. Of which, studies on mechanism of acupuncture therapy and acupoints were the hot spots during this period, with the most projects funded. Studies on mechanism of acupuncture therapy still focused on the cerebral protective mechanism after cerebral ischemia. Research projects on acupoints mainly involved acupoints and viscera related studies, studies on acupuncture points and the state of human body, studies on acupuncture effects and techniques, studies on compatibility of acupuncture points,

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studies on acupuncture points of ears and studies on acupuncture pattern, which focus on and address the relationship between structural characteristics and functional properties to reveal the material basis and mechanism of acupuncture effects. Compared with the 11th Five-Year Plan (2006-2010), the NSFC markedly enhanced the support to the acupuncture and moxibustion studies, especially for young scholars. During both Five-Year Plans, studies on acupuncture analgesia and acupuncture therapy of cardiovascular and cerebrovascular diseases were still the emphasis of the fundamental acupuncture and moxibustion research supported by the NSFC, while studies on the mechanism of acupoint sensitization and moxibustion therapy had become the hot points of this research area. From the results of analysis, lack of fundamental studies on clinical use, scattered research contents, limited research ideas and lagging research methods were still the problems that restricted the study of acupuncture.

Keywords: Acupuncture and Moxibustion; Current situation; 12th Five-Year Plan; NSFC; Research project

Introduction

"Five-Year Plan" is an important part of the National Economy Plan in China, which mainly makes the plans on the major national construction project, productive force distribution and major proportion relationship in the national economy and stipulates the target and direction for the national economic development prospects. The 12th Five-Year Plan is the abbreviation on the twelfth Five-Year Plan outline (2011-2015) of the national economy and social development of the People's Republic of China. The projects on the science of acupuncture and moxibustion are one of the directions in the national 12th Five-Year Plan. The National Natural Science Foundation of China (Hereinafter referred to as NSFC) established by the State Council of PRC, mainly aims at the demands on major scientific frontiers and important national strategies is one of the main channels to obtain supports from Chinese government on the fundamental research. The acupuncture and moxibustion therapy has been gradually recognized and widely spread all over the world because it is simple, convenient, cost effective and efficacious, without drug-related toxic and side effects. However, the mechanisms of acupuncture and moxibustion remains unclear. Therefore, Chinese government always strongly supports the fundamental research in the field science of acupuncture and moxibustion. In this article, we carried out a detail analysis of the acupuncture and moxibustion projects funded by the NSFC during the 12th Five-Year Plan on the official website of National Natural Science Funds Commission (<http://www.nsf.gov.cn/>), using the application codes for acupuncture and moxibustion including the science of meridians and acupoints (application code: H2707) and science of acupuncture and moxibustion (application code: H2718) and compared the funding status during the 12th Five-Year Plan with that during the 11th Five-Year Plan.

Report of the Funded Projects during the 12th Five-Year Plan

Total number of the funded projects and overall distribution of funding capital during the 12th Five-Year Plan

The NSFC had funded up to 499 projects in the field of acupuncture and moxibustion science during the 12th Five-Year Plan, with the

funding strength reached up to RMB 254.24 million Yuan. From 2011 to 2015, the number of the projects funded by the NSFC tended to become steady, while the funding strength presented an escalating trend (Figure 1). As shown in table 1, the distribution of the institutions with number of projects funded by the NSFC ranked in the top ten during the 12th Five-Year Plan. The top three institutions were the Chengdu University of Traditional Chinese Medicine (CUTCM), and the Shanghai University of Chinese Medicine (SUCM), the

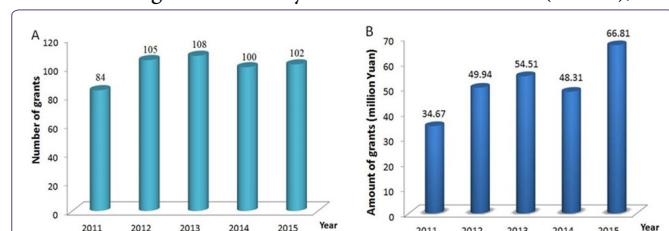


Figure 1: Annual situation of the projects of the acupuncture and moxibustion funded by the NSFC during 12th Five-Year Plan.

A: Number of the projects of the acupuncture and moxibustion funded by the NSFC from 2011 to 2015.

B: Amount of project capitals of the acupuncture and moxibustion funded by the NSFC from 2011 to 2015.

China Academy of Chinese Medical Sciences (CACMS), respectively. In addition, non Traditional Chinese Medicine Colleges, universities and research institutions also actively carried out studies on the acupuncture and moxibustion science, with ninety-six projects on the acupuncture and moxibustion science obtained by these colleges and universities or hospitals of Western Medicine field accounting for 19.24% of the total funded projects. Among them, the Fudan University obtained the most funded projects and funding capital in the acupuncture and moxibustion field (Table 2).

Funding categories during the 12th Five-Year Plan

The projects funded by the NSFC to studies on acupuncture and moxibustion during the 12th Five-Year Plan covered ten areas: major program, key program, the major international (regional) cooperative research projects (projects of the agreement between the Non Governmental Organization), the general program, National Science Fund for Young Scholars, National Science Fund for Distinguished Young Scholars, special funds of the NSFC, Fund for Less Developed Regions of the NSFC, the international (regional) cooperation and exchanges projects, and the emergency management projects (Figure 2 and Table 3).

From the above information, the categories of the acupuncture and moxibustion projects funded by the NSFC still mainly focused

Institution funded	General projects	Project for young scientists fund	Major projects	Significant international cooperation projects	International (regional) cooperation and exchange project	Total
Shanghai University of Traditional Chinese Medicine	18	28	0	1	1	48
Chengdu University Of Traditional Chinese Medicine	26	12	2	0	0	40
China Academy Of Chinese Medical Sciences	23	14	0	0	1	38
Tianjin University of Traditional Chinese Medicine	10	20	1	0	0	31
Nanjing University of Traditional Chinese Medicine	14	15	0	0	0	29
Beijing University of Chinese Medicine	19	6	1	0	2	28
Hunan University of Chinese Medicine	12	10	0	0	0	22
Guangzhou University of Traditional Chinese Medicine	14	5	1	0	0	20
Anhui University of Traditional Chinese Medicine	12	8	0	0	0	20
Hubei University of Chinese Medicine	13	3	0	0	0	16

Table 1: Distribution of the institutions funded by the NSFC ranked in the top ten for acupuncture and moxibustion science during the 12th Five-Year Plan.

Institution funded	Number of the projects	Amount of capitals (Million Yuan)
Fudan University	10	637
Huazhong University of Science and Technology	6	260
Southern Medical University	6	243
The Chinese people's liberation army, second military hospital	4	228
Capital Medical University	4	266
Ningxia Medical College	4	189
Shantou University	4	117
The fourth army of the Chinese people's liberation army hospital	3	348
Chinese academy of medical sciences, Peking union medical college hospital	3	153
Xinjiang Medical University	3	143
Hainan Medical College	3	126
Total	96	2710

Table 2: Institutions which were not the Traditional Chinese Medicine acquired the funding of the NSFC in the field of acupuncture and moxibustion sciences during the 12th Five-Year Plan were as following (the number of the project funded was greater than or equal to 3).

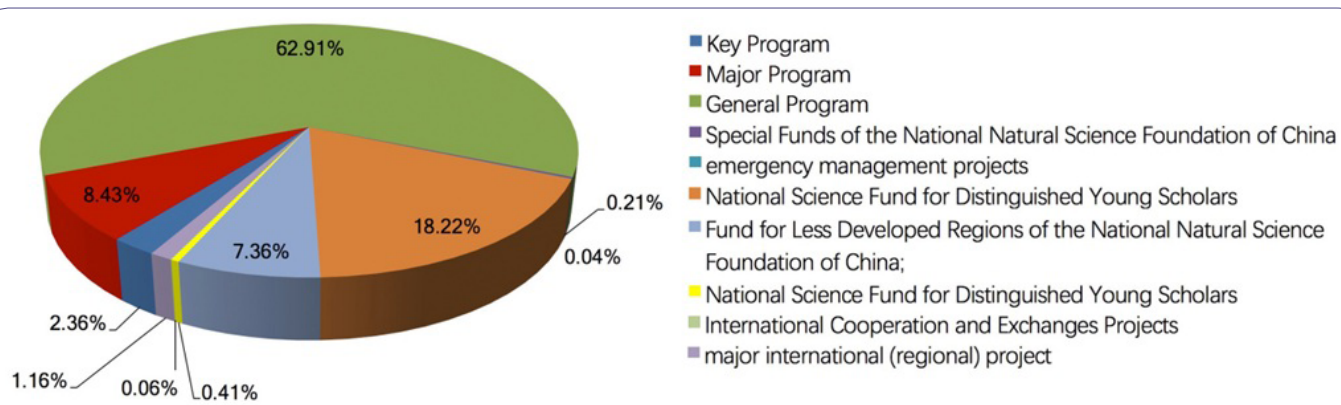


Figure 2: Distribution of different project capitals on different categories of acupuncture and moxibustion science funded by the NSFC during the 12th Five-Year Plan (the figure shows the percentage of projects capitals in different research categories to the total funded capitals funded by the NSFC from 2011 to 2015).

Program categories	Number of programs	Percent of the total programs (%)	Capitals (million Yuan)
Key program	2	0.40%	5.7
Major program	6	1.20%	20.36
General program	243	48.70%	151.88
Special Funds of the National Natural Science Foundation of China	5	1.00%	0.5
emergency management projects	1	0.20%	0.1
National Science Fund for Distinguished Young Scholars	199	40.00%	43.99
Fund for Less Developed Regions of the National Natural Science Foundation of China;	38	7.62%	17.76
National Science Fund for Distinguished Young Scholars	1	0.20%	1
International Cooperation and Exchanges Projects	3	0.60%	0.15
major international (regional) project	1	0.20%	2.8

Table 3: Summary diagram of programs funded by the NSFC to researches on acupuncture and moxibustion during the 12th Five-Year Plan.

on the general program and National Science Fund for Young Scholars. Although there were only eight major programs and key programs, only accounting for 1.6% of the total number of the funded projects, the funded capital accounted for 14.18% of the total funded capital. This showed that the NSFC strongly supported the major research of the science of acupuncture and moxibustion in order to accomplish breakthrough development, while chose major programs with caution.

Analysis of the research contents of related projects funded by the NSFC

As always, there were two application codes for the acupuncture and moxibustion projects funded by the NSFC during the 12th Five-Year Plan, both belonged to the discipline TCM (application code: H27): science of meridians and acupoints (H2707) and science of acupuncture and moxibustion (H2718), respectively. Among them, there were forty-nine research projects on meridians and acupoints, and the other 450 research projects related to the acupuncture and moxibustion.

During the 12th Five-Year Plan, the proportions of projects in fundamental research and in applied fundamental research on acupuncture and moxibustion funded by NSFC were 82.01% and 17.99%, respectively. Their research content encompassed seven fields including studies on meridians, studies on the theory of acupoints, studies on acupuncture analgesia, studies on the mechanisms of the acupuncture and moxibustion therapy, the acupuncture and moxibustion clinical researches, the acupuncture and moxibustion manipulations

(Figure 3). The categories of the funded projects during the 12th Five-Year Plan were mainly the studies on mechanisms of the acupuncture and moxibustion therapy, and studies on the theory of acupoints, which accounted 51.70% and 25.25% of total number of funded projects. The projects of other research categories accounted for 23.05% of the total number of projects (Figure 3).

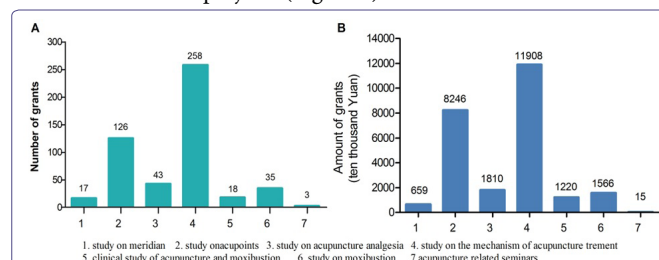


Figure 3: Study on the projects of different research categories in the acupuncture and moxibustion science funded by NSFC during 12th Five-Year Plan.

A: Amount of grants in different research categories of acupuncture and moxibustion science from 2011 to 2015.

B: Summary for Capitals of different research categories in the field of acupuncture and moxibustion science funded by NSFC from 2011 to 2015.

Studies on the Mechanism of the Acupuncture Therapy

During the 12th Five-Year Plan, the number of the research projects in this category included three key program, three major international (regional) cooperative project, 118 general programs, 117 National

Science Fund for Young Scholars projects, nineteen fund for less developed regions of the National Natural Science Foundation of China, and one special funded project, accounting for 46.84% of the total amount of the funded projects. Most of the institutions which apply for these projects distributed in Shanghai, Nanjing, Tianjin, Chengdu and Guangzhou, respectively. Their studies mainly focused on the brain science. Among them, the most research projects were the studies on the mechanism of protection of acupuncture after cerebral ischemia, amounting to fifty-seven projects, mainly the studies on the mechanisms of related signaling pathways after cerebral ischemia and the anti inflammatory action of acupuncture.

In addition, there were four studies on the brain injury which involved the influence of acupuncture to the neural stem cell after the cerebral injury; twenty studies on the acupuncture therapy of depression involved the influence of acupuncture to the neural network and the molecular pathways of the depressive disorder patients; seventeen studies on the acupuncture therapy of the cardiovascular disorders which involved the mechanisms on the protective effect of acupuncture to the diseases such as the myocardial ischemia reperfusion, the high blood pressure, etc. There were fourteen studies about the influence of the acupuncture therapy to the digestive system including the research on the regulatory mechanisms of the acupuncture to the chronic atrophic gastritis, the functional dyspepsia and the enteric nervous system; twenty studies on the acupuncture therapy to the endocrine system, primarily including the studies on the action mechanisms of the acupuncture treatment for anti obesity and the epigenetics. There were twenty studies on about the mechanisms of neuron regeneration and the signal pathway after the acupuncture treatment of spinal cord injury. Some projects were the studies on the biomechanics and the mechanisms of signal pathway in the arthritis and osteoporosis, including eighteen projects on the mechanisms of acupuncture anti inflammatory, which were mainly studies on the mechanisms in anti asthmatic immune inflammation and anti arthritis. There were six projects on the acupuncture in treatment of Alzheimer's disease, three projects on treatment of the senile dementia and one project on the infantile autism, respectively. A minority of projects involved the influence of the electroacupuncture to the biological rhythm, epigenetics of the hepatoma mice, the regulation effect of acupuncture to the hepatic vessel, and the influence of the acupuncture to the auditory sense and the visual sense.

Acupoint Researches

The acupoint research was one of the research fields funded emphatically during the 12th Five-Year Plan, with the number of funded projects accounting for 25.25% of the total funded projects, and funded capital accounting for 32.43% of the total amount. The acupoint research mainly concerned the studies related to the meridian points and the internal organs, the studies on the acupuncture points and the physical condition, the studies on the effect and the manipulation of the acupuncture points, the studies on the compatibility of the acupuncture points, the studies on the auricular point, and the studies on the acupuncture manipulation, to emphatically resolve the problem of the relationship between structural characteristics and functional properties and reveal the material basis and mechanism of the acupuncture effects.

The effect and the manipulation of the acupoint: There were thirty-six projects in this field which was the funded field with the maximum number of capital in acupoint research. These projects emphasized on the acupoint sensitization characteristics and the

mechanisms of acupuncture manipulation to the analgesia and the diseases related to the nerve damage, the cardiovascular disease, and the endocrine disease, such as studies on the space and time response disciplinary of the different acupuncture manipulation based on the electrical signal of the cerebral neuron, etc.

Relationship between the acupuncture points and the internal organs: It aimed to analyze the mechanisms of the traditional acupuncture theories such as 'treatment of visceral diseases with lower confluent point', 'the impairment of Qi resulting in pain' and 'the mutual impact of the kidney and the brain' by the modern medical technology. For example, combining molecular biology with the Functional Magnetic Resonance Imaging (fMRI) technology and verify the Traditional Chinese Medicine acupuncture classic theory.

Research on acupuncture therapy: It involved the studies on the effects and mechanisms of the electroacupuncture, the warming dredging acupuncture manipulation, the needle knife, the bee venom acupuncture, and the Lotus needle of the Zhuang Medicine to the cerebrovascular diseases including depressive disorder, the dementia, the Alzheimer's disease, and diseases of the digestive system and the immune system. In addition, remote detection of the acupuncture manipulation was designed such as "ZigBee technology", which realized a more objective acupuncture manipulation. Furthermore, using the data mining technology to further explored and analyzed the dominant diseases categories and the rules for selection acupoint for the microacupuncture system, which promoted the prominence of the advantage of the acupuncture in disease treatment and the normalization of this therapeutic method.

The acupuncture points status and the physical condition: Which aimed to the influence of the acupuncture in the specific points to the functional status of the body, such as regulatory effect on the acupoint sensitization to the algesia and the internal movement as well as the mechanism of its receptor studying the effective mechanisms of the Yin and Yang heel meridians by applying the electroacupuncture to the circadian rhythm control in the Clock/Bmal1-Pers/Cryspassage' and the research on the mechanisms of the influence of the acupuncture in the special acupoints such as the 'philtrum' and the 'jia ji acupoints' to the organism status.

The combination of acupoints: Which focused on the mechanisms of shu-back points and front-mu points combination, yuan-source points, collateral-points combination, and manifestation-root points combination in regulating genes and the related signal pathway in the myocardial ischemia, the myocardial cell apoptosis, and the gastrointestinal dysfunction. There was also the research on the regularity of the acupoints compatibility based on the division of the binary network community. These studies verified the acupuncture moxibustion theory in the specific diseases and made the compatibility of point regularization.

The auricular points: Because the specificity of the relationship between the acupuncture points in the ear region and the pneumogastric nerve, the research on the mechanisms of the auricular points function and the healing become the focus of the scholar research on acupuncture and moxibustion during the 12th Five-Year Plan. There were three research projects on the auricular points, which were 'research on the effect and the mechanism of the electroacupuncture to the hydro labyrinth of the guinea pig model with the aural vertigo based on

the expression of the aquaporin 1 in the inner ear', 'research on the clinical and the mechanism of the auricular concha pneumogastric nerve stimulation in the treatment of insomnia' and 'auricular acupuncture treatment of the pediatric epilepsy and the relationship between it with the pneumogastric nerve effect', respectively. And all of these studies were involved with the mechanisms of the auricular acupuncture therapy of dizziness, insomnia and pediatric epilepsy.

Research on the Acupuncture Analgesia

During the 12th Five-Year Plan, the number of the funded research projects related to the acupuncture analgesia accounted for 8.62% of the total funded projects, with the funded capital of these projects accounting for 7.12% of the total funded capital. In the studies on the central mechanism of acupuncture analgesia and the immunomodulatory mechanism of acupuncture, the electroacupuncture and the moxibustion, the pain were usually involved with the abdominal pain, migraine, menstrual cramps and ache related to the tumor. Among them, many studies involved the mechanisms of the acupuncture resisting the inflammatory pain, and some were involved with the analgesic and accumulation effect of acupuncture, some were the studies on the mechanisms of the labor analgesia by the cooperation of the acupuncture and the five element music. Most of the other projects were the research on its mechanisms involved effect and neurobiology, such as 'treating the pain by using the warm acupuncture: the research on the non harmful thermal stimulation analgesic effect and its mechanism.

Research on Meridians

During the 12th Five-Year Plan, the number of the studies related to the meridians was less. The number of the projects on the funded studies accounted for 3.41% of the total funded projects, with the funded capital of these projects accounting for 2.59% of the total funded capital. These projects included nine general programs, three National Science Funds for Young Scholars, three special funded programs, one emergency management project and one district science fund project. The mechanisms of these researches involved treatment of the cardiovascular disease by selecting the acupoints according to the channel, the change rule and the standardization of the meridian points for acupuncture and moxibustion. In addition, there were some modern technologies apply to study of the nature of the science of meridian based on the biological photon correlation theory and the multimodal techniques. For example, the projects such as 'Research on the nature of meridian based on the bio photon relevant theories', 'Research on the calcium ion oscillations in the meridians and acupuncture points based on the non linear dynamics and the noise stochastic resonance theory'. Both studies standardized and quantified the meridian study by using the modern science technology.

Other Acupuncture and Moxibustion Research Funded By the NSFC

Clinical research on the science of acupuncture and moxibustion

There were eighteen clinical research projects of the science of acupuncture and moxibustion during the 12th Five-Year Plan, including one major program named 'the clinical application research on the different functional status of the acupuncture points'. Among them, five projects were the researches on the excavating the clinical data of acupuncture in treating disease and research on the establishment of the clinical evidence for grading therapeutic regimen of the

disease score, including three projects of the imageology studies on the cerebral apoplexy and teenagers migraines using the magnetic resonance technology respectively, such as 'Neuroimaging studies on treating the children amblyopia by using the percussopunctator', 'In vivo research of the Glutamate-GABA mechanism of regulating the cerebral activity of the patients with panic disorder in the perimenopause using the method of acupoint catgut embedding', etc. There were a few clinical studies on the science of acupuncture and moxibustion, which may be concerned with the great difficulty of the clinical research and the NSFC support emphasized on the fundamental research.

Studies on the moxibustion manipulation

There were thirty-five research projects on the moxibustion manipulation during the 12th Five-Year Plan, with the number of projects 1.5 times of that in the 11th Five-Year Plan. CUTCM and SUCM acquired the number of the projects were more than other institutions. These studies focused on the molecular biological and neurobiological mechanism, function mechanism of different moxibustion manipulation, and on the moxibustion treatment in different diseases (including the diseases of the digestive system, the cardiovascular system and the immune system). Also, studies on the mechanisms of anti-aging of moxibustion therapy and the influence of the acupuncture and moxibustion to the tumor related factor and the influence of the needle warming moxibustion to the visceral hyperalgesia were included.

Seminar related to acupuncture and moxibustion

There were total three funded seminars related to the science of acupuncture and moxibustion. The content involved the discussion on the acupuncture and massage technique, and the influence of the Functional Magnetic Resonance Imaging (fMRI) for detecting the effect of acupuncture and moxibustion in the brain, and the acupuncture and moxibustion technology to the world health.

Comparison with the Funding Situation of the Acupuncture Project by NSCF during the 11th Five-Year Plan

Compared with the funding situation of the NSCF in the acupuncture projects during the 11th Five-Year Plan, the number of the acupuncture projects funded by NSCF during the 12th Five-Year Plan increased by 308, with a proportion of up to 180.92%; the funded capital increased by 202.56 million Yuan, with a proportion of up to 384.58%. The categories of the projects funded showed that four categories of the major program, the major international (regional) cooperation and research project (the negotiation project among the Non Governmental Organization), the special funded program and the emergency management program were added during the 12th Five-Year Plan compared to the 11th Five-Year Plan. In addition, compared with in the 11th Five-Year Plan, the proportion of the general projects of the acupuncture funded by the NSFC in the 12th Five-Year Plan decreased by 13.17%, while the proportion of the National Science Fund or Young Scholars funded increased by 40.08%. This showed that NSFC was increasingly focused the support of acupuncture research on the foundation projects of young scientists.

From the research content of the funded projects, all of the subject terms in the application projects of the science of acupuncture and moxibustion during the 11th Five-Year Plan and the period of the 12th Five-Year Plan focused on acupuncture and electroacupuncture (Figure 4). This indicated that the acupuncture and moxibustion research still placed particular emphasis on the function mechanism of

the acupuncture and moxibustion. And the word acupuncture analgesia emerged during the 12th Five-Year Plan period more frequently, and the number of relevant research projects was 5.375 times of that during the 11th Five-Year Plan. In addition, the protective effect of acupuncture analgesia to the cerebral ischemia was still one of the major subjects in the acupuncture and moxibustion research. Meanwhile, this showed that acupuncture analgesia had the advantage in the cerebral ischemia disease treatment. The terms, astrocyte and acupuncture effect, ranked in the top ten for the first time, which perhaps due to the concern extent to the astrocyte in the field of neurobiology and the degree of the enthusiasm on acupuncture and moxibustion study abroad [1,2].

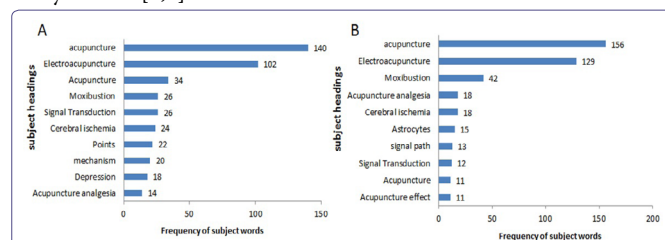


Figure 4: Summary for Top 10 of the frequency using subject terms in the application projects in the field of acupuncture and moxibustion science funded by the NSFC.

A: Top 10 of the frequency in the subject terms for the application projects of the acupuncture and moxibustion science funded by the NSFC during the 11th Five-Year Plan.

B: Top 10 of the frequency in the subject terms for the application projects of the acupuncture and moxibustion science funded by the NSFC during the 12th Five-Year Plan.

Compared with in the 11th Five-Year Plan, the research content of the science of acupuncture and moxibustion in the period of the 12th Five-Year Plan were more explicit and more definite. For example, the general subject terms such as ‘acupuncture point’ and ‘mechanism’, etc., ranked in the top ten in the 11th Five-Year Plan, but didn’t appear in the subject terms which ranked in the top ten in the 12th Five-Year Plan. While the subject terms ranked in the top ten in period of the 12th Five-Year Plan were more specific professional words such as ‘astrocyte’ and ‘signal channel’, this may be related to the rapid development of neurobiology. And the ‘acupoint sensitization’ became the hotspot of acupuncture moxibustion research at this time. The projects of acupuncture and moxibustion science included six major research projects, of which five projects focused on the studies in the acupoint sensitization, and also included one general project and two youth fund projects. And of which the total funded capital reached to 28.64 million Yuan. Furthermore, the number of the research projects on the mechanisms of moxibustion therapy presented rising trend obviously, and the research content did not only involve the mechanisms of anti-aging and enhancing immune but also the research on the mechanisms of treatment of tumor related diseases.

Conclusion

By compared with the 11th Five-Year Plan, the number and the funding strength on the research projects related to acupuncture and moxibustion funded by the NSCF has been elevated significantly during 12th Five-Year Plan, and this showed that Chinese Government was strongly supporting the fundamental research and development on the science of acupuncture and moxibustion. During the 11th Five-Year Plan and 12th Five-Year Plan, the categories of funded

projects encompassed the studies on meridians, acupoints, acupuncture manipulation and acupuncture effects related function mechanisms thereof. The main disease categories with which these research projects involved were cerebrovascular and cardiovascular diseases, the immune system and endocrine system. And also there were some studies on the mechanisms of acupuncture and moxibustion effect on the health care. Compared during the 11th Five-Year Plan, the research on acupuncture analgesia and acupuncture and moxibustion therapy of cardiovascular and cerebrovascular diseases were still emphasis during the 12th Five-Year Plan [3], the studies on acupuncture point and mechanisms of moxa moxibustion therapy have been hotspot of the acupuncture and moxibustion researches, and perhaps will be the research emphasis of the acupuncture and moxibustion during the 13th Five-Year Plan (2016-2020).

The existing problems included the following: (1) the studies on acupuncture and moxibustion based on the clinical were still in shortage. By far, there were few studies related to the acupuncture and moxibustion clinical domestically, this perhaps because the NSFC fund was mainly focus on fundamental studies of the acupuncture and moxibustion. The acupuncture and moxibustion fundamental researches from the clinical and should be practiced in clinical, so that it should incorporate with the clinical. (2)The content of the acupuncture and moxibustion studies was too scattered. The disease categories studied by the acupuncture and moxibustion were various, the range of their pathogenic involved were rather extensively, and their research targets presented the pattern of flowers of every kind in bloom, in which the target of every research were disperse and unconcentrated, thus they went against the basic mechanisms on which the acupuncture and moxibustion may treat certain diseases, and weren’t able to form a intact research system. (3)The idea of research was short of innovation and the research methods were backward relatively. The research approach mainly imitated those of the modern medical studies and didn’t have the feature of Traditional Chinese Medicine research; while with regard to the research means, although the imaging technologies such as the fMRI has entered into this research field, however the newest neurobiological research such as the optogenetics, weren’t still been applied widely. In consideration that, the domestic acupuncture and moxibustion studies still lacked of international recognition no matter it was the clinical research or the fundamental research, thus there is still a very long way to go in order to acquire the major breakthrough in the thought and research method of acupuncture and moxibustion.

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