### Award for Outstanding PSBH® Project 2015 Application Form

**Project Details:**

<table>
<thead>
<tr>
<th>项目名称</th>
<th>护理干预对哈萨克族原发性高血压患者KAP水平及健康状况的影响</th>
<th>主题</th>
<th>哈萨克族原发性高血压患者KAP水平及健康状况</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project Title</strong></td>
<td>The effects of nursing intervention on KAP level and health of Kazakh patients with essential hypertension</td>
<td><strong>Theme</strong></td>
<td>Kazakh high blood pressure physical condition</td>
</tr>
<tr>
<td>项目负责人</td>
<td>代亚丽</td>
<td>项目成员</td>
<td>张庆华</td>
</tr>
<tr>
<td><strong>Project Lead</strong></td>
<td>Dai Yali</td>
<td><strong>Project Team</strong></td>
<td>Zhang Qinghua</td>
</tr>
<tr>
<td>经费</td>
<td>RMB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>项目起止日期</td>
<td>起始：2015年7月1日</td>
<td>完成：2017年6月1日</td>
<td></td>
</tr>
<tr>
<td><strong>Project Period</strong></td>
<td>Start Year 2015 Month July Day</td>
<td>End Year 2017 Month June Day</td>
<td></td>
</tr>
</tbody>
</table>

**Problem Description**

The epidemiologic study conducted in 2010 on hypertension in various nationalities in Xinjiang showed: the morbidity of hypertension in Kazak, Uygar and Han nationalities are 48.69%, 28.50% and 33.42% respectively with Kazak’s morbidity higher than Han’s, and Uygar’s is equal to that of the nation’s which is 2.56 times higher than that of Han’s. The co-study on cardiovascular diseases by China and the U.S.A found that the vital risks causing high pressure in China in 1980s were due to the excessive body weight, greater degrees of weight gain and the excessive drinking. Some studies abroad suggested that the healthy life habits may lower the risks of high pressure by 55% and the early prevention of high pressure may also lower the risks of stroke and myocardial infarction by 50%. Therefore, the cultivation and formation of healthy life habits can effectively lower the risk factors of blood pressure, so the active prevention and intervention of the risks of high pressure play an important role in both the public health and the social economy.

Among people in the pastureland, the effective measures should be taken to improve life qualities of the patients with high pressure, such as focusing on the health education and health promotion, taking priority in the intervention of high pressure to enhance life standard and quality of the population, promoting the capacity of self health care, correcting the bad life habits and manners and preventing the further development of high pressure.

**Solution**

1. **Samples**

   Cluster random sampling technique was used to select 1,900 Kazak residents over 18 in Gangou village of the South-mountain areas of Urumqi as the research subjects. Of the 1832 valid questionnaires 905 were of the intervention group and 927 were of the controlling group. For the intervention group and the patients with high blood pressure, the comprehensive nursing by means of health education was the main method adopted.

   After 8-month education on high blood pressure in the intervention group, we evaluated the intervention effects of the health education on the patients by testing the knowledge of the disease, the attitude and the behaviors of hypertension.

   1) Blood pressure: patients’ blood pressures of the right upper body were measured at fixed time with the same sphygmomanometer. The patients were asked to rest for 30 minutes before measuring the blood pressure for three times with the average figures counted.

   2) Body weight: The body weights were measured by the same weighing machine.
Those measured were asked to be empty-stomach, bare-head and bare feet with great precision.

3) Waist measurement: The people being measured were asked to stand straight with their belly relaxed, arms down, feet closed and the breath normal when being measured. The end of the tape measure was held at the navel and was brought around the waist to the front.

A baseline survey was conducted among Kazak patients with high blood pressure to learn their health conditions and basic indicators, who were grouped randomly and followed every three months. We did the same to the controlling group. Then the 12-month effects of nursing intervention, both before and after, were compared comprehensively between the intervention group and the controlling group.

2. Intervention contents

1）The self-compiled book EDUCATION ON THE PREVENTION OF HIGH BLOOD PRESSURE in the language of Kazakh was distributed to each Kazak family.
2) Ask the village committee to broadcast every morning from 12 am. to 5 pm. the knowledge of both harms and prevention of high blood pressure in their native language to increase their understandings of the severities and risks of high blood pressure, drawing them to pay attention to the prevention of high blood pressure. For the intervention group, hypertension self-management handbook was distributed, which informed them some basic knowledge of high blood pressure, the necessary preventive measures and the definitions, tasks and goals in self-management.
3）The herdsmen attended the lectures on high blood pressure given by the specialists and professors every two months.
4）A propaganda poster on health was conducted every two months.
5）Follow-ups were conducted to have a face-to-face consultation with the herdsmen of the intervention group.
6）We organized four free out-door volunteer clinics and the health consult activities.
7）The associate propaganda: the consulting service and blood pressure measuring spot were set up at the local hospitals.
8）The food intervention: the salt spoon were given to the intervention group according to the WHO’s suggestions which says 6g salt is the proper amounts everyday.
9）Exercise intervention: the intervention group were guided to do physical exercises and some work properly based on their ages and body conditions.
10）We also told them the functions of hypertension medicines, the significance of taking medicines on time, dosages for long-term as well as the side-effects of some commonly-used hypertension medicines and the prevention of postural hypotension
11）We communicated with the patients and their relatives by teaching them how to measure the blood pressure and how to control their blood pressure within the aimed goals actively.
12）The follow-up education: we performed the health consultations and follow-ups dynamically by telephone every month for the patients with high blood pressure. We also did home-visits every three months and the prescriptions for high blood pressure were also given. The changes of each criteria were evaluated after the 8 months intervention.

1.2 The comparison of related knowledge of high blood pressure and the attitude and behavior of all the Kazak residents living in the pastureland.

Our study showed that there were no statistic difference concerning the knowledge, attitudes and behaviors between the intervention group and the controlling group. There were 886 valid questionnaires from the intervention group and 901 from the controlling group with 2.1% and 2.8% vacant visit rate respectively for the reasons of moving away, going out and the refusing.

After 8-month health education, the awareness rate of high blood pressure preventive knowledge in the intervention group increased from 11.9% to 60.0%, the rate of belief rose from 13.8% to 57.3% and the rate of behavior rose from 14.0% to 34.6% with statistic difference before and after the intervention and no changes in the controlling group.

The proportion of the intervened blood pressure level of patients I increased from
30.17% to 34.20%; the blood pressure level of patients II decreased from 15.14% to 10.95%; those with patients III decreased from 6.52% to 2.26%. The blood pressure level divisions were valid in comparison and the order measure were statistically significant.

During the 8 months health education to the Kazak residents in the intervention group, there were statistical difference in the knowledge knowing, the beliefs and the behaviors compared to the controlling group. After the intervention, there were 83.4% residents in the intervention group who knew the normal figures of blood pressure while there were only 16.6% residents in the controlling group knowing it, accounting for the significant difference between the two groups. (x^2=250.94, P=0.000); there were 42.6% people in the intervention group who were aware of the fact that over-treating salt is likely to develop high blood pressure while there were only 6.9% people in the controlling group knowing it, making the difference significantly between the two groups. (P=0.000); as for the knowledge of the relationship between over-weight and obesity with high blood pressure, the figures were 74.9% in the intervention group and 15.2% in the controlling group respectively with significant difference (x^2=677.00, P=0.000); for the possibility of blood pressure measure in thirty, the figure were 57.3% in the intervention group and 11.1% in the controlling group respectively with statistic difference in attitudes between the two groups; the figures were 41.8% in the intervention group and 10.6% in the controlling group concerning the measurement of blood pressure persistently, making the difference significantly.

### 执行力
Excellence in Execution

| Time: From July, 2011 to October 2012 |
| Budget: 40,000 RMB, Expenses: 50,000 RMB |
| Participants: 6 post-graduates, 20 undergraduates, 4 teachers and 2 doctors from the village hospitals. |

Our well-organized and orderly comprehensive intervention of the Kazak residents in the pastureland proved to greatly improve their awareness of hypertension, to help develop right attitude and awareness of hypertension and to change their bad behaviors. We also helped the village clinic set up the family health files of the herdsmen.

### 发展性
Sustainability

The intervention result of this research was short-term, and the long-term effect was hard to turn out, leaving us to do the further research. Therefore, the result can be the starting point for the next program to further improve the intervention of health education in the pastureland. We suggest that the effect of health education intervention should be enhanced by means of education. Also we, together with the people in the pastureland should perform the sustainable health education activities and lay down the long-term effective measures on health education to lower down the risks of the morbidity and complication of high blood pressure among Kazak and in the end decrease the incidence and mortality of CVD.

Then we should turn from health education to the enhancement of health quality and strengthen the patients’ abilities of self-organization. Here the health quality of high blood pressure refers to the abilities of attainment and understandings of the disease control as well as the knowledge of dealing with high blood pressure and the medical services. Most Kazaks depend mainly on the pasture life which is in the mold of scattering and which inevitably results in the backwards of their economical culture.

Those herdsmen have their own language, their own living and eating habits, but there is no report as to how their health qualities are. Thus it is of great importance for us to know clearly the present condition of the patients’ health conditions and qualities and their self-organizing levels among the Kazaks in Xinjiang.

Later on, we are going to study the contents such as the related health qualities, the self-effect, the social support, the self-organizing levels and the living qualities of the patients with high blood pressure in Kazaks in Xinjiang, and analysis will be done on the relationships and its influence tracks between the self-organizing levels and the disease related health qualities, self-effect and social supports to build the mold of self-discipline influential elements for the Kazak patients with high blood pressure in Xinjiang, to make the health intervention plan targeted at the weakness of related health.
qualities of high blood pressure, to conduct the health intervention of Kazak patients with high blood pressure scientifically and to provide evidence for the evaluation of the intervention effect for the purpose of laying solid foundation of the health care and the health improvement.

<table>
<thead>
<tr>
<th>No.</th>
<th>Expense items</th>
<th>RMB/$</th>
<th>No.</th>
<th>Expense items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>materials</td>
<td>6000</td>
<td>5</td>
<td>consults 2400</td>
</tr>
<tr>
<td>2</td>
<td>investigations</td>
<td>8000</td>
<td>6</td>
<td>printings 5000</td>
</tr>
<tr>
<td>3</td>
<td>meetings</td>
<td>3000</td>
<td>7</td>
<td>others 1600</td>
</tr>
<tr>
<td>4</td>
<td>computer and equipments</td>
<td>5000</td>
<td>8</td>
<td>students’ jobs 5000</td>
</tr>
</tbody>
</table>

合计 total 36000 元

年度预算 annual budgets

<table>
<thead>
<tr>
<th>Year 2015</th>
<th>Year 2016</th>
<th>Year 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000 RMB/$</td>
<td>10000 RMB/$</td>
<td>6000 RMB/$</td>
</tr>
</tbody>
</table>

1、Owing to the limited conditions and the funds, the research only focused on the Kazaks in Gangou village in Urumqi county, among which the whole Kazaks in the south and north areas of Xinjiang were not covered, so our research can not represent the present state of the whole Kazaks in Xinjiang, therefore we hope to complete it when the research funds are adequate in the future.

2、To strengthen the compiling work of the Health Education handbook in the language of Kazak.

3、To enlarge the scale of the training of the health educators in Kazak.

创新力
Innovation
请描述方案执行中遇到的挑战、应对过程及方式。
请提供任何项目执行的相关照片、影片，如前后的比较、干预对象、宣教范本等，请以中英文填写。