研究知情同意书

一、研究名称：高强度间歇训练与中等强度持续训练对代谢综合征中年人群心代谢健康的干预效果研究

二、研究单位：望奎县卫生健康委员会、望奎县中医院健康管理中心、望奎县妇幼保健院、河南大学、韩国庆一大学、牡丹江师范学院

三、研究背景与目的：

我们正在开展一项旨在改善中年人群代谢健康状况的运动干预研究。研究将比较两种训练方式——高强度间歇训练（HIIT）与中等强度持续训练（MICT）对心代谢风险指标（如血糖、血脂、肝酶、尿酸、炎症水平、心率恢复等）的改善效果。您是否愿意参与本研究，将为优化个体化运动干预方案提供科学依据。

四、研究流程：

- 在参与前，您将接受一次基础评估（身高、体重、血压、血糖、血脂等）；
- 您将被随机分配到不同的运动干预组，干预为期 12 周；
- 每周训练 3–5 次，每次约 30–45 分钟，训练形式包括跑步机、骑行或健身操；
- 所有训练在专业人员监督下进行，训练强度将根据心率监测进行动态调整；
- 实验中期和结束时将分别进行评估和采样。

五、可能风险与处理措施：

运动干预可能会引起暂时性疲劳、肌肉酸痛、心率加快、轻度头晕等不适反应。如出现身体不适，您可以立即终止训练，现场医务人员将进行评估并采取必要处理。

本研究配备急救设备（如自动体外除颤仪 AED、心率监测设备），并设有应急处理预案以保障安全。

六、数据隐私与保密：

- 所有研究数据将以编号形式记录，不涉及姓名、身份证等敏感身份信息；
- 数据将保存在安全系统中，仅供科研使用，不用于任何商业用途；
- 数据将保留 5 年后销毁或匿名存档；
- 任何公开报告均不会泄露您的个人身份。

七、受试者权利：

- 参与完全自愿；
- 您有权在任何阶段无条件退出研究，退出不影响您的日常医疗服务；
- 若您选择退出，已采集的数据将在去身份化后用于整体统计分析，或根据您的要求予以删除；
- 如有任何疑问、风险或意见，您可随时联系研究团队。

八、费用与补偿：

本研究不提供现金补偿。但您将获得免费的健康评估、个体化锻炼建议以及运动训练指导等健康支持服务。

九、联系方式：

如在研究期间出现任何不适或对研究有任何疑问，请及时联系项目负责人或现场工作人员。我们将及时为您解答并提供帮助。

签字栏（纸质打印后使用）：

受试者签名：_____

日期：_____年___月___日

研究人员签名：_____

联系电话：_____

Informed Consent Form

1. Study Title:

A 12-Week Intervention Study Comparing the Effects of High-Intensity Interval Training and Moderate-Intensity Continuous Training on Cardiometabolic Health in Middle-Aged Adults with Metabolic Syndrome

2. Institutions:

Wangkui County Health Commission；Health Management Center of Wangkui；County Hospital of Traditional Chinese Medicine；Wangkui Maternity and Child Health Hospital；Henan University；Kyungil University (Republic of Korea)；Mudanjiang Normal University

3. Background and Purpose:

We are conducting a study aimed at improving cardiometabolic health in middle-aged adults. This study will compare two exercise modalities—High-Intensity Interval Training (HIIT) and Moderate-Intensity Continuous Training (MICT)—in terms of their effects on cardiometabolic risk indicators, including blood glucose, blood lipids, liver enzymes, uric acid, inflammation levels, and heart rate recovery.

Your participation will provide scientific evidence to optimize personalized exercise interventions for individuals at metabolic risk.

4. Study Procedures:

• You will undergo baseline assessments including height, weight, blood pressure, blood glucose, and lipid profile before participating.

• You will be randomly assigned to one of the exercise intervention groups, and the intervention will last for 12 weeks.

• Training will occur 3–5 times per week, each session lasting approximately 30–45 minutes, including activities such as treadmill walking, cycling, or aerobic exercises.

• All sessions will be supervised by qualified professionals, and the intensity will be adjusted dynamically based on heart rate monitoring.

• Mid-term and final evaluations and sample collections will be conducted.

5. Potential Risks and Management:

Exercise interventions may cause temporary fatigue, muscle soreness, increased heart rate, or mild dizziness. If you experience any discomfort, you may stop the session immediately, and medical staff will provide timely evaluation and appropriate management.

Emergency equipment such as an Automated External Defibrillator (AED) and heart rate monitors will be available at all training sites, and emergency response protocols have been established to ensure participant safety.

6. Data Privacy and Confidentiality:

• All research data will be coded by participant ID numbers without collecting names, ID card numbers, or other personally identifiable information.

• Data will be stored in a secure system, used only for academic research purposes, and will never be shared for commercial use.

• All data will be retained for five years before being destroyed or archived in an anonymized format.
• Any published findings will not disclose your personal identity.

7. Participant Rights:

• Participation is entirely voluntary.
• You have the right to withdraw from the study at any time for any reason without affecting your regular medical care.
• If you choose to withdraw, data collected before withdrawal will be anonymized and retained for statistical analysis, or completely deleted upon request.
• You may contact the research team at any time with questions, concerns, or risks during the study.

8. Costs and Compensation:

No monetary compensation will be provided. However, you will receive free health assessments, individualized exercise advice, and training guidance as part of the study support services.

9. Contact Information:

If you experience any discomfort or have any questions during the study, please contact the project leader or on-site staff. We will assist you promptly.

Signature Section (for printed paper-based use):

Participant's Signature: _____

Date: _____ / _____ / _____

Researcher's Signature: _____

Contact Number: _____