

Supplementary File: Semi-structured Interview Guide

Gendered Labour, Ethnic Pastoralism and Physical Activity Inequality among Middle-aged Kazakh Women in Xinjiang, China

1. Overview of the Interview Guide

This semi-structured interview guide was developed for the ethnographic study "*Gendered Labour, Ethnic Pastoralism and Physical Activity Inequality among Middle-aged Kazakh Women in Xinjiang, China*." The guide was designed to explore the multi-level constraints on physical activity participation among Kazakh women aged 45–59 living in pastoral communities in Zhaosu County, Ili Kazakh Autonomous Prefecture, Xinjiang, China.

The interview protocol is grounded in social ecological theory (Bronfenbrenner, 1979) and is intended to elicit narratives and reflections across four ecological levels: **intrapersonal, interpersonal, institutional/community, and macro-level** factors. The guide served as a flexible framework rather than a rigid questionnaire; interviewers were trained to follow participants' leads and probe emergent themes while ensuring all core domains were covered.

2. Interview Setting and Procedures

Setting: Interviews were conducted in participants' homes, household courtyards, village activity rooms, or other quiet and private settings chosen by the participants. Fieldwork took place between January 2024 and November 2025.

Duration: Each formal interview lasted approximately 30–60 minutes. Informal follow-up conversations were also recorded as supplementary data.

Language: Interviews were conducted in Kazakh or Mandarin Chinese according to participant preference. A Chinese–Kazakh bilingual consent form and oral explanation version were available for participants with limited literacy.

Recording: With participant consent, interviews were audio-recorded for later transcription and data verification. No photographs or video recordings were taken in private household settings.

Anonymisation: All participant names were replaced with codes during transcription. Information that could identify individuals, families, or specific addresses was removed.

3. Semi-structured Interview Guide

The following questions and prompts were used to guide the conversation. Interviewers were instructed to begin with open-ended, non-directive questions and to use follow-up probes to deepen responses. The order of modules was adapted to the flow of each interview.

Module A: Warm-up and Life Context

- Could you tell me about your daily life here in the village? What does a typical day look like for you, from morning until evening?
- How long have you lived in this area? Could you describe your household — who lives with you, and what does each person do?
- What work do you do in a typical season? (Prompt: herding, lambing, shearing, dairy preparation, household tasks, childcare, etc.)
- How has your daily life changed compared to ten or twenty years ago?

Module B: Physical Activity and Exercise

- Could you tell me about the kinds of physical activities or exercise that you do, if any?
- Do you consider yourself someone who exercises regularly? Why or why not?
- What does "exercise" or "physical activity" mean to you?
- Have you ever participated in any sport or planned exercise? (If yes: What was it? When? How did it feel? If no: What has prevented you?)
- How do you feel about your body's ability to move and be active?
- Do you experience any bodily discomfort, pain, or health conditions that affect your ability to be active? (Prompt: arthritis, hypertension, fatigue, etc.)
- When you were younger, did you have opportunities to do sports or physical activities? What were they?

Module C: Labour and Health Cognition

- Some women say that their daily work — herding, household chores, caring for family — gives them enough physical activity. What do you think about this?
- Do you feel that the physical work you do every day is good for your health? In what ways?
- Do you feel tired at the end of a typical day? What does "rest" mean to you, and when do you get to rest?
- Have you ever received advice or information about exercise for health? From whom? (Prompt: health workers, media, family, neighbours.)

- What do you understand about the relationship between physical activity and chronic diseases such as high blood pressure or diabetes?

Module D: Family and Household Support

- If you wanted to go for a walk or do some exercise, how would your family react? (Prompt: husband, children, in-laws.)
- Who in your household makes decisions about how time is spent?
- How is household and herding work divided between men and women in your family?
- Do you have grandchildren? If yes, how much time do you spend caring for them each day? How does this affect your own time?
- Have you ever discussed exercise or health with other women in the village? What do they say?
- Is there anyone in your life who encourages you to be physically active?

Module E: Community Environment and Services

- Are there places in your village where people can exercise or play sports? (Prompt: basketball court, fitness equipment, open spaces.)
- Have you ever used these places? Why or why not?
- Who do you see using the village sports facilities? (Prompt: men, young people, children.)
- Are there any organised sports or cultural activities in the village? (Prompt: horse racing, kokpar, basketball games, festival performances.) Do you participate?
- Have you ever received any guidance or instruction on how to use outdoor fitness equipment?
- What would make it easier or more comfortable for women like you to use these spaces?

Module F: Gender, Culture and Policy

- In your community, are there expectations about what is appropriate for women to do in public spaces? How does this affect your daily life?
- Do you feel comfortable being seen exercising or walking alone in public? Why or why not?
- How have things changed for Kazakh women in your lifetime? (Prompt: settlement, education, work, mobility.)
- Are you aware of any government policies or programmes that encourage women to participate in sports or physical activity? Have these reached your village?

- If you could design a programme to help women in this community be more physically active, what would it look like?
- Is there anything else you would like to share about your experiences that we have not discussed?

4. Probing Strategies

- ‘Can you tell me more about that?’
- ‘Could you give me an example?’
- ‘How did that make you feel?’
- ‘Has that always been the case, or has it changed over time?’
- ‘What do other women you know think about this?’
- ‘If you could change one thing about this situation, what would it be?’

5. Theoretical Framework Reference

Bronfenbrenner U. *The Ecology of Human Development: Experiments by Nature and Design*. Cambridge, MA: Harvard University Press; 1979.