

Supplementary File 1. Study Questionnaire (English version)

Study title: Transforming rural practice exposure into career intention: a cross-sectional pathway study among medical students in Southwest China

This file presents the English translation of the questionnaire as it was administered to respondents. The original questionnaire was deployed online in simplified Chinese via the Credamo platform. Details of scale sources and adaptation are reported in the Methods section of the main manuscript.

Note to respondents (translated from the original Chinese version): Please complete the questionnaire carefully. Inattentive responses will be excluded.

Introduction: Professional identity influences learning behaviour, achievement and satisfaction in professional study and work, especially in a highly professional discipline such as medicine. This questionnaire is designed to understand medical students' professional identity toward the rural doctor occupation, in order to inform medical teaching and counselling. Please answer according to your true views. There are no right or wrong answers. We sincerely appreciate your support and cooperation.

— Professional Identity Research Group

Section A. Demographic and background characteristics

A1. Name of your school: _____ (open-ended)

A2. Province where your school is located (single choice):

- ☐ Chongqing Municipality
- ☐ Sichuan Province
- ☐ Guizhou Province
- ☐ Yunnan Province
- ☐ Tibet Autonomous Region
- ☐ Other

A3. Ethnicity (single choice):

- ☐ Han
- ☐ Ethnic minority

A4. Major (single choice):

- ☐ Clinical medicine
- ☐ Chinese medicine
- ☐ Integrated Chinese and Western clinical medicine
- ☐ Nursing
- ☐ Preventive medicine
- ☐ Other

A5. Level of education (single choice):

- ☐ Junior college (zhuanke)
- ☐ Undergraduate (benke)
- ☐ Master's student
- ☐ Doctoral student

A6. Current academic year (single choice):

- ☐ Year 1
- ☐ Year 2
- ☐ Year 3
- ☐ Year 4
- ☐ Year 5

A7. Age (in completed years): _____ (open-ended)

A8. Sex (single choice):

- ☐ Male
- ☐ Female

A9. Are you an only child? (single choice):

- ☐ Yes
- ☐ No

A10. Household-registration (hukou) location before enrolment (single choice):

- ☐ Rural area or township
- ☐ County seat (county-level city)
- ☐ City (prefecture-level city or above)

A11. Are you currently a student cadre? (single choice):

- ☐ No
- ☐ Yes

A12. Do you have any medical professionals among your relatives? (single choice):

- ☐ Yes — among immediate family members
- ☐ Yes — among other relatives
- ☐ No medical relatives

A13. Have you ever participated in rural or primary-care health-related practice activities (e.g., rural free-clinic outreach, rural clinical clerkship, community internship)? (single choice):

- ☐ Yes, once
- ☐ Yes, multiple times
- ☐ No, never

Section B. Professional identity toward the rural doctor occupation

Instruction: The following statements concern your professional identity toward the rural doctor occupation. Please rate each item according to how well it matches your actual situation:

1 = Does not match; 2 = Does not match very well; 3 = Hard to say; 4 = Matches fairly well; 5 = Matches completely.

B1. Professional cognition (Items 1–7)

1. When I started university, I had a fairly good understanding of the rural doctor occupation.
2. I clearly understand the responsibilities a rural doctor should bear.
3. The value of being a rural doctor is higher than that of most other occupations.
4. The rural doctor occupation is one of the occupations most needed by society today.

5. Rural doctor work involves high pressure and high risk.
6. The current practice environment at the rural primary-care level is rather poor.
7. The rewards rural doctors receive match what they contribute.

B2. Professional emotion (Items 8–14)

8. I think rural doctor work is enjoyable.
9. I like being a rural doctor.
10. Being a rural doctor would be my ideal career choice.
11. When interacting with classmates from other majors, I feel proud that I may become a rural doctor in the future.
12. I feel uncomfortable when others speak negatively about rural doctors.
13. Medical education has further strengthened my decision to become a rural doctor.
14. If I could choose again, I would still choose to practise medicine in rural primary care.

B3. Professional commitment (Items 15–17)

15. The career prospects of rural doctors are poor, and I have a desire to change occupations. (reverse-coded)
16. After graduation I will choose to work as a doctor at the rural primary-care level.
17. Being a rural doctor will be my lifelong occupation.

B4. Professional behaviour (Items 18–21)

18. I am attentive and engaged in my professional studies.
19. I am willing to participate in training, lectures and other activities that will help me practise medicine in rural primary care in the future.
20. I pay attention to news reports about rural doctors.
21. I actively learn about rural primary-care health policies (e.g., the order-oriented training programme, the special-post programme).

B5. Professional expectation (Items 22–30)

22. I feel I have a natural aptitude for being a rural doctor.
23. My specialty studies are solid; I can meet primary-care medical needs.
24. I have a good grasp of practical skills and am suitable for working independently at the primary-care level.
25. My academic performance is rather strong.
26. I feel I can perform the work of a rural doctor in the future.
27. I am confident I will become an excellent rural doctor.
28. I hope to achieve something during my career as a rural doctor.
29. I am optimistic about the future development of rural primary-care health services.
30. I am confident about taking up employment in rural primary care in the future.

B6. Professional values (Items 31–38)

31. Being a rural doctor is a noble occupation.

- 32. Rural doctors can cure illness and save lives — it is a great profession.
- 33. Rural doctors enjoy a relatively high social status.
- 34. Being a rural doctor is highly respected.
- 35. Being a rural doctor is merely a means of livelihood. (reverse-coded)
- 36. Being a rural doctor would enable me to live the life I want.
- 37. I feel that being a rural doctor would help me realize my life's value.
- 38. Patient satisfaction will be the goal I pursue in my future work.

Section C. Retention intention

Instruction: Assume that after graduation you are already working in a rural primary-care medical institution. Please answer the following items based on your subjective willingness.

1 = Does not match; 2 = Does not match very well; 3 = Hard to say; 4 = Matches fairly well; 5 = Matches completely.

- C1. If I were working at a rural primary-care medical institution, I would be willing to remain in that post over the long term.
- C2. Even when I encountered work difficulties, I would not easily consider leaving the rural primary-care post.
- C3. If conditions allowed, I would hope to work at a rural primary-care medical institution for at least five years.
- C4. I would not easily give up rural primary-care work simply because an urban hospital offered higher pay.
- C5. I think working in rural primary care can help me achieve my career-development goals.
- C6. I am willing to make a long-term commitment to rural primary-care medicine as my career plan.

Closing note (translated from the original Chinese version): Thank you again for your cooperation, and best wishes for your studies!