Original Research Article

Why do Junior High School Students from Poor Families in Southwest China Maintain a High Dropout Rate under Multiple Policies Support?

ABSTRACT:

Little is known about the reasons for the high dropout rate of students from poor Southwest China families under various policies support. The dropout rate of 27312 junior high school students was 6.90%, and the dropout rate of grade 7-9 increased with the grade. Principal Component Analysis was conducted on 21 attributes of 299 dropout students. We found that parents with higher educated degree and late marriage, parents working close to home, large family size, family with sick or disabled members, higher grade and non-boarding and unhealthy students increased the dropout rate. The dropout prevention requires reducing the inducers from family, school management and students themselves.

Keywords: Aid policy; Dropout factors; Junior high school students; Poor families

JEL codes: I20, I25, R10

1. Introduction

The high dropout rate of junior high school students exists in many countries and regions. In recent years, India (Yadav and Mehta, 2018; Mardolkar and Kumaran, 2020), Bangladesh (Hossen et al., 2018), Singapore (Ma, 2008), Israel (Qiu, 2005)and China (Yi et al., 2012; Shi et al., 2015; Chang et al., 2016; Min et al., 2016; Gao et al., 2019) have reported high dropout rate of junior high school students. In some regions, the cumulative dropout rate of junior high school students in three years was more than 50% (Yi et al., 2012; Shi et al., 2015). The problem of dropping out of school has always been a common concern in the education field. Dropping out of school causes the waste of educational resources, hinders the development of education, and is unfavorable to the talent cultivation and economic development of a nation (Chang et al., 2016).

The factors that cause junior high school students to drop out of school are multidimensional, including achievement, emotion, economy, cognition, social culture, behavior and psychology, etc (Hossen et al., 2018; Vaughn et al., 2020). Dropout factors are complex and heterogeneous, involving society, school, family and students themselves (Kearney, 2008). Dropout is strongly influenced by pushing out of school due to students' adverse experiences within school and by pulling out of school due to

factors external to the school (Gao et al., 2019). Poor rural junior high schools generally have a higher dropout rate than developed urban junior high schools (Li and Wang, 2017; Gao et al., 2019). Singapore (Ma, 2008) and the United States (Yuan, 2008) have implemented educational diversion and alternative school programs to reduce dropout rates. Some Chinese scholars advocated promoting secondary vocational education (Liang, 2013; Li and Wang, 2017) or setting up social-emotional learning programs to relieve students' learning anxiety and reduce dropout (Wang et al., 2016).

Since 2016, China has implemented a nationwide poverty alleviation policy in order to eradicate poverty, improve people's livelihood and gradually realize common prosperity. Taking families as the unit, poverty-stricken families were identified and the degree of poverty was judged according to the family's housing, annual grain harvest, annual income, medical security, number of students and other conditions. Poverty-stricken families were accurately identified abided by strict procedures and criteria, whose information were input in the Poverty Alleviation and Development Information system (PADI system). Archives containing detailed information were established for these families, including the total member number of each family, poverty level, per capita income, gender, age, educated degree, health status, marital status, labor force, employment and other attributes. Such families were called Archive Established and Identified Poor families (AEIP families). Children from AEIP families could enjoy all free policies in school, including nutrition meal, sundry fees, book fees, school accommodation, and so on. In addition, according to the family poverty level, students could receive poverty grant of different levels from the government and various kinds of donation from all walks of life, such as sporting goods, books and stationery, clothes and money. They also received long-term aid and attention from local government designated supporters. If they drop out of school, the designated supporter had the obligation to persuade students to return to school, and had the responsibility to understand the reasons for dropping out and track the students' whereabouts within the first three months after leaving school. The whole process needed to be well recorded and submitted to the school where the dropout was attending. For deep poverty-stricken families, they could apply for free new housing in immigrant zone, where houses were constructed specially for the deep poor families. The government also assisted some poor family members to get temporary job or permanent employment. Students from AEIP families were subsidized by a variety of preferential policies. Surprisingly, the dropout rate remained high and the success rate of persuading them to return to school was very low if they had left school. Why was the dropout rate of students still high under so many preferential policies and subsidies? The purpose of this paper is to find out the reasons why students drop out of school and why they are unwilling to return to school. This study has practical significance for preventing students from dropping out of school in poverty-stricken areas.

Material And Methods

2. Data sources

2.1. Regional introduction

The data were collected from G Province, China. In recent decades, G Province has been one of the provinces with the lowest per capita income in China, and it has been officially identified one of the provinces with the highest density of poverty population. The landform of G Province is mainly plateau and mountainous area with high ratio exposed karsts, leading to the scarcity of agricultural land. In remote rural areas, transportation is inconvenient, and the proportion of junior high school students going to school on foot and boarding in school is high. Because economy in the study area lags behind, many villagers emigrate for work.

2.2. Data collection

From Sep. 2017 to Aug. 2019, the first author of this article was sent to CJ County of G Province to hold a temporary post and manage education. During this period, I collected all relevant data, and I also frequently participated in home visits to persuade the dropout students to return to school. Due to confidentiality issues, the names of the province, prefectures and counties in this paper are not suitable for disclosure. The data collected include: (1) Dropout rate. The data collected from the summary table of inspection at the beginning of semester released by local bureau of education of CJ County and CH County of G Province, including the enrollment situation of 27312 students (grade 7-9) in 18 junior high schools in CJ County and one junior high school in CH County in the two spring semesters (March to July) in 2018 and 2019. The summary table was usually published in the second week after the beginning of the school, reporting the enrollment situation of students of different genders and grades in each school. In fact, the enrolled students displayed by summary table referred to registered students. Some students became concealed dropouts after registration; they took the final exam, and were notified to attend classes temporarily during the superior inspection, but seldom entered campus during regular class time. (2) Student name list. Our study focused on the reasons why students from poor families dropped out of school. Therefore, we chose middle schools which were remote from the county town. A name list of all the students from five rural junior high schools in CJ County and one rural junior high school in CH County was collected, containing the details of age, gender, boarding, whether the students were in school and when the dropouts left school. (3) Family information. Number of family members, parents' educated degree, health status of family members, number of migrant workers, poverty level, per capita net income, birth date of parents, number of siblings, number of parents alive and number of family labor force were obtained from the local population information registration spreadsheet and the PADI system. Since the PADI system only provided information on the AEIP families and did not provide data on families that were not poor. Therefore, in addition to the drop out rate calculation involved all 27312 students, the rest of the content involved students from the AEIP family. In our study, family information of 299 dropout students (including concealed dropouts) and 209 students in school were

obtained from the PADI system and the local population information registration spreadsheet. (4) Whereabouts of dropouts. After the children of the AEIP families dropped out of school, the designated supporter conducted at least three home visits for each dropout student, persuaded them to return to school and traced their whereabouts.

2.3. Factor definition and data processing

If there were both dropout students and students in school in a family, family information was only used as statistics data for dropout. If a family had more than one child and all of them were in school, only one child was randomly selected as represent of the family and the family member information was collected. If the student was a foster child, then collect foster family information. A total of 21 factors were obtained (Table 1), including four student attribute factors, one school management factor and 16 family characteristic factors. Both the dropout students and the students in school were the children from AEIP family.

Table 1

Factor of students from poverty-stricken families in Southwest China and factor processing.

Factor category	Serial number	Factor	Definition and assignment in calculation
Student attributes	f1	Gender	Male=1, female =2
	f2	Grade	Seventh grade=7, eighth grade=8, ninth grade=9
	f3	Age gap (month)	The standard age of a student was calculated based on the legal age of admission of the first-grade students in the local primary school, which was 6-year-old (72 months). The age gap (months) was equal to the actual age minus the standard age
	f4	Heath condition	Unhealthy included mental retardation, disability or chronic diseases. Healthy = 1, unhealthy = 2
School management	f5	Boarding or not	Boarding = 1, no boarding = 2
Family characteristics	f6	Family size	Total number of family members including students themselves
	f7	Poverty level	Poverty levels were obtained from the PADI system. Very light poverty = 1, light poverty = 2, low-income = 3, poverty-stricken family with government living guarantee = 4, and poverty-stricken family with extremely poor support = 5
	f8	Per capita income (yuan)	Net income per capita
	f9	Father's marriage age	The age of the father at the time of his marriage. If the father has no record of marriage age due to death, the average value was used instead
	f10	Mother's marriage age	Refer to f9
	f11	Number of siblings	Number of siblings including students themselves
	f12	Number of parents	The number of parents alive, all dead = 0, one alive = 1, both alive = 2

	alive	
f13	Marital status of parents	Divorce = 1, no divorce = 2
f14	Father's educated degree	Father dead or unexplained loss of contact = 0, illiterate or semi-illiterate = 1, primary school = 2, junior high school = 3, senior high school = 4, college and above = 5. In case of divorce, since the education role still works, it was calculated according to the father's actual educated degree. If it was a stepfather, it was calculated according to the stepfather. The foster children counted according to the foster family
f15	Mother's educated degree	Refer to f14
f16	Total score of educated degree	Total score of parents' educated degree, f16 = f14 + f15
f17	Number of patients	Number of chronic patients or disabled family members excluding students
f18	Number of labor force	Healthy manual workers in the family identified by the local government
f19	Father migrant work status	The farther away from home, the less care and contact with children. Father dead or unexplained loss of contact = 0, migrant work outside the province = 1, migrant work in the province outside the county = 2, migrant work in the county outside the town = 3, migrant work in the town = 4, work at home = 5
f20	Mother migrant work status	Refer to f19
f21	Parents score of migrant work	The total score of both parents' migrant work, f21 = f19 + f20

3. Data analysis

All data were analyzed with Statistical Package for Social Science software version 17.0 (SPSS 17.0). The Chi-square Test was used to test the difference of dropout rate between different genders and among different grades, and the data were weighted before the test. When comparing the mean values of the characteristic parameters between the dropout students and students in school, the two groups of data of each factor did not meet the requirement of homogeneity of variance (Kolmogorov-Smirnov test; $p < 0.05$), and all of them were tested by Mann Whitney U Test. When the Principal Component Analysis was used to extract the principal components of dropout factors (Rotation method: Varimax), a total of 21 variables were selected (Table 1). Significant levelα=0.05.

4. Results

4.1. Dropout rate

A total of 1885 students dropped out of 27312, with a dropout rate of 6.90% (Table 2). There was no significant difference in the dropout rate between different

genders (p = 0.593; Chi-square test), but there was a significant difference among different grades (p = 0.049). The dropout rate increased with the grade.

Table 2

Dropout rates between different genders and among different grades of junior high school students from poor families in Southwest China.

		Total number	Number of dropout	Dropout rate (%)	Difference
Gender	Male	16277	1230	7.56	χ^2=0.29, df=1, p=0.593
	Female	11035	655	5.94	
Grade	Seventh- grade	9436	230	2.44	χ^2=6.00, df=2, p=0.049*
	Eighth- grade	9211	703	7.63	
	Ninth- grade	8665	952	10.99	

Note: *P* value with * indicates significant difference (the same below). The data was from local bureau of education.

4.2. Differences in characteristics between dropouts and students in school

A characteristics comparison on dropout students from poor families with those in school showed that (Table 3): the dropout students had older age, lower boarding rate, lower family poverty level, parents had a relatively older marriage age and a higher divorce rate, mothers had a higher educated degree, parents had a higher total educated score, families had more labor force and parents work closer to home. There were no significant differences in health status, number of family members, per capita family income, number of siblings, number of parents alive, father's educated degree and number of family patients between dropout students and students in school.

Table 3

Differences in characteristics between dropout students and students in school from poor families.

Variables	Dropout students			Students in school			Mean difference
	Min	Max	Mean	Min	Max	Mean	
Age gap (month)	-16	74	9.38±12.53	-25	38	4.30±10.43	Z=-4.63, P<**0.01***
Heath condition	1	2	1.01±0.12	1	2	1.00±0.07	Z=-0.96, P=0.33
Boarding or not	1	2	1.85±0.35	1	2	1.14±0.35	Z=-15.94, P<**0.01***
Family size	1	8	4.45±1.50	2	11	4.54±1.52	Z=-0.12, P=0.90
Poverty level	1	4	2.25±1.21	1	5	2.52±1.19	Z=-2.29, P=**0.02***
Per capita income (yuan)	432	14652	5563.64±2809.79	1197.50	21250	5495.09±2994.72	Z=-0.59, P=0.55
Father's marriage age	14	47	26.43±5.97	16	46	25.02±5.03	Z=-2.61, P=**0.01***
Mother's marriage age	13	40	24.24±5.49	15	45	22.54±4.01	Z=-3.52, P<**0.01***
Number of siblings	1	5	2.19±0.92	1	6	2.12±0.85	Z=-0.97, P=0.33
Number of parents alive	0	2	1.82±0.51	0	2	1.87±0.36	Z=-0.14, P=0.89
Marital status of parents	1	2	1.92±0.27	1	2	1.98±0.14	Z=-2.97, P<**0.01***
Father's educated degree	0	3	1.96±0.77	0	4	1.79±0.84	Z=-1.87, P=0.06
Mother's educated degree	0	4	1.68±0.80	0	4	1.53±0.67	Z=-2.31, P=**0.02***

Total score of educated degree	0	6	3.64±1.37	0	6	3.33±1.10	Z=-3.29, P<**0.01***
Number of patients	0	2	0.16±0.40	0	2	0.18±0.40	Z=-0.66, P=0.51
Number of labor force	0	5	2.27±0.97	0	6	2.04±0.80	Z=-3.40, P<**0.01***
Father migrant work status	0	5	3.16±1.92	1	5	2.95±1.76	Z=-2.06, P=**0.04***
Mother migrant work status	0	5	3.89±1.71	0	5	3.46±1.79	Z=-3.53, P<**0.01***
Parents score of migrant work	2	10	7.05±2.77	1	10	6.41±2.98	Z=-2.49, P=**0.01***

Note: The data obtained from the local population information registration spreadsheet and the PADI system

4.3. Analysis of dropout factor

The Principal Component Analysis of 21 characteristics (Table 1) of 299 dropout students showed that (Table 4; Fig. 1): there were eight principal components with eigenvalues greater than 1, and the cumulative contribution rate was 70.92%, indicating that these eight principal components reflected the information of 21 variables. The factor component matrix after rotation (rotation method: Varimax) showed that the parents' educated degree had a greater load on the first principal component, reflecting the higher educated degree of parents, the higher dropout rate of their children. Parental migrant work had a greater load on the second principal component, reflecting that the closer the parents worked to home, the more likely their children inclined to drop out of school. The number of family members and the number of siblings had a greater load on the third principal component, indicating that the number of family members and the number of siblings greatly increased the dropout rate. The parents' marriage age exerted a greater load on the fourth principal component, which reflected the rising trend of children's dropout rate if parents got married late. The number of sick members of a family had a greater load on the 5th principal component, which indicated that the illness of family members increased the dropout rate. Boarding or not had a greater load on the sixth principal component, indicating that boarding could reduce the dropout rate. The grade had a greater load on the seventh principal component, which indicated that the dropout rate increased with the grade. The health condition of students had a greater load on the eighth principal component, which indicated that unhealthy status led to an increased possibility of dropping out.

Tab 4

Rotated component matrix and rotation sums of squared loadings from dropout factors of poor students

	Variables	Component							
		1	2	3	4	5	6	7	8
Rotated component matrix	Gender	0.05	-0.02	0.00	-0.18	0.61	0.04	0.27	0.16
	Grade	0.01	0.02	0.06	-0.06	0.05	0.11	**0.86**	0.05
	Age gap (month)	0.07	0.28	-0.05	-0.12	-0.05	0.36	-0.35	0.43
	Heath condition	-0.02	0.08	-0.06	-0.09	-0.01	0.13	-0.10	**-0.86**
	Boarding or not	0.12	-0.08	-0.07	0.17	-0.04	**-0.61**	-0.17	0.26
	Family size	0.21	-0.10	**0.90**	-0.02	0.09	0.04	-0.02	0.03
	Poverty level	-0.15	0.30	-0.05	0.14	0.55	-0.29	-0.14	0.03

	Per capita income (yuan)	0.17	-0.40	-0.18	0.10	-0.13	0.56	0.04	0.11
	Father's marriage age	-0.13	0.10	-0.10	**0.86**	0.11	-0.12	-0.01	0.01
	Mother's marriage age	-0.04	0.10	-0.10	**0.90**	0.03	-0.01	-0.05	0.06
	Number of siblings	0.03	0.02	**0.87**	-0.15	-0.05	-0.05	0.14	0.00
	Number of parents alive	0.80	-0.17	0.16	0.14	-0.01	0.23	0.06	0.08
	Marital status of parents	0.05	-0.01	0.34	-0.25	0.16	0.34	-0.24	-0.05
	Father's educated degree	**0.85**	-0.14	0.04	-0.14	0.04	-0.01	-0.16	-0.04
	Mother's educated degree	**0.85**	-0.01	0.09	-0.08	-0.06	-0.02	0.11	0.04
	Total score of educated degree	**0.97**	-0.09	0.07	-0.12	-0.02	-0.02	-0.02	0.00
	Number of patients	0.01	0.01	0.09	0.22	**0.71**	0.02	-0.06	-0.16
	Number of labor force	0.36	0.01	0.49	0.02	-0.13	0.50	-0.04	0.14
	Father migrant work status	-0.18	**0.68**	-0.17	-0.11	0.41	0.06	-0.02	0.04
	Mother migrant work status	-0.04	**0.76**	0.09	0.31	-0.26	-0.08	0.02	-0.05
	Parents score of migrant work	-0.15	**0.94**	-0.07	0.11	0.12	-0.01	0.00	0.00
Rotation sums of squared loadings	Total	3.36	2.36	2.08	1.99	1.51	1.37	1.13	1.10
	% of Variance	15.99	11.24	9.93	9.46	7.19	6.53	5.37	5.22
	Cumulative %	15.99	27.23	37.16	46.62	53.80	60.33	65.70	70.92

Note: The values in bold indicated the factors with larger load in the principal component. The data were from the student name list, the local population information registration spreadsheet and the PADI system

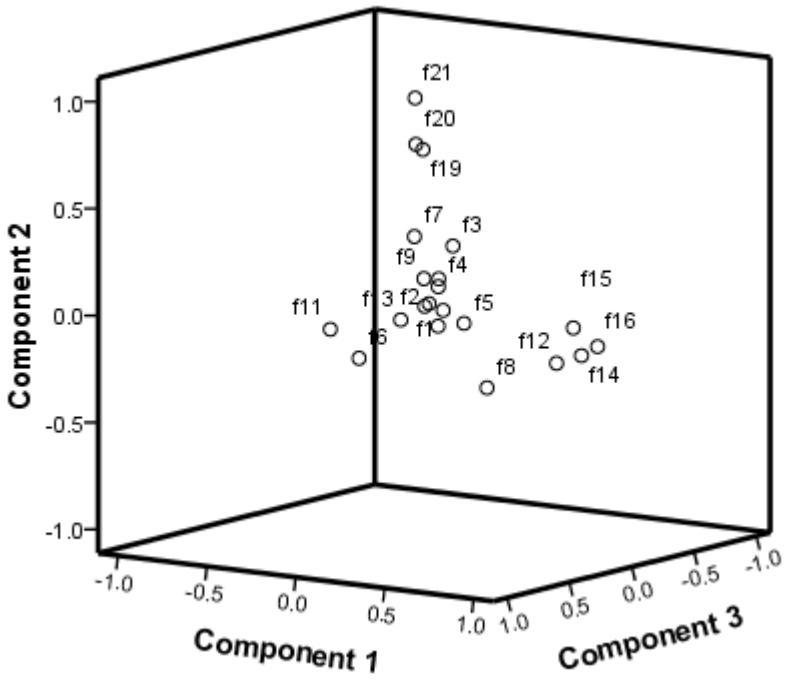

Fig. 1. Principal component plot in rotated space of dropout factors for poor students (f1-f21 in the plot refer to Table 1)

4.4. Students returning rate and the dropout whereabouts

Of the 299 students who were persuaded to return by designated supporter, only

three (1.00%) returned to school, 235 (78.60%) were unreturned, and 61 (20.40%) were concealed, according to the records submitted by designated supporters (Fig. 2). The trace record on 296 students who were unreturned and concealed dropouts showed that 73.99% stayed at home, 25.00% worked outside and 1.01% lost contact, and 10.47% of them got married soon after they left school (Table 5).

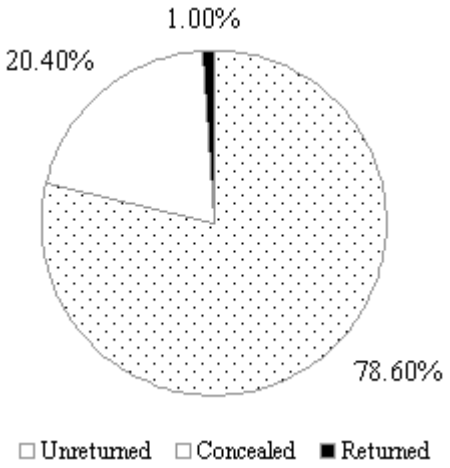

Fig. 2. Return rates of dropout students

Note: The data was from trace records of dropout students submitted by designated supporters

Table 5

Whereabouts of dropouts within 3 months after leaving campus

Whereabouts	Number of dropouts (%)	Details
Stay at home	219 (73.99%)	214 dropouts were idle or farming, five were sick or mentally disabled; 27 got married
Work outside	74 (25.00%)	74 dropouts worked outside; four got married
Lost contact	3 (1.01%)	The whole family went out or refused to contact

Note: The data was from trace records of dropout students submitted by designated supporters

5. Discussion

5.1. Analysis of the reasons for dropout

5.1.1. Family factors

Family financial difficulties are no longer an important factor that causes junior high school students to drop out of school in rural areas of China (Shi and Zhao, 2016; Gao et al., 2019). In rural junior high school in Northwest China, even if tuition and fees are zero, the dropout rates still maintain high level (Gao et al., 2019). Our research on the poverty-stricken families in Southwest China showed that there was no difference between the per capita income of dropout students' families and that of school students' families, which indicated that economic factors had little influence on dropouts. The impact of parents' educated degree on children's dropout rate shows different results. Some studies have shown that students with different parental

educated degree have little difference in dropout tendency (Liang, 2013), and some studies have shown that children from families with less educated parents are more likely to drop out (Yi et al., 2012; Wang et al., 2015; Gao et al., 2019). Our research showed that the dropout rate of children with more educated parents was higher (Table 3, Table 4, Fig. 1). More educated parents have an advantage in the labor market, which increases the proportion of educated parents employed in the labor market. The parents who work in economically developed areas are more informed than those who stay in isolated and economically backward mountainous areas, a better understanding of the current situation of college students' difficulty in obtaining employment (Sun, 2014). As a result, more educated parents may be more likely to meet the dropout requirements of their children. The closer parents work to home, the more frequent they communicate with their children. Letting children know about new things outside of school will incentive their desire of dropping out of school, just like school students who have frequent contact with their dropout peers will increase the dropout rate (Gao et al., 2019). Our conclusion was similar to previous studies that the average age of the heads of households of dropout students was higher than the average age of the heads of non-dropouts (Hossen et al., 2018). Older parents who spoil their children more may increase the dropout rate of their children (Table 4, Fig. 1). Children in families with large size and many siblings (Chang et al., 2016; Hossen et al., 2018), divorced parents (Liang, 2013) and sick members are more likely to drop out of school (Table 3, Table 4, Fig. 1), in which families they receive less attention and bear greater psychological stress.

5.1.2. Student factors

At present, Chinese junior high school students go out to work not because of economic pressure, but a willing choice under the temptation of money (Gao et al., 2019). Boys have more temporary low-skill job opportunities than girls, resulting in a higher dropout rate for boys than girls in junior high schools (Liang, 2013; Chang et al., 2016; Gao et al., 2019). Our research showed that the dropout rate of boys was 1.27 times higher than that of girls (Table 2). China’s labor-intensive economy has a large market and low requirements on the cultural quality of the labor force. By hiring these cheap labor forces, the boss can obtain the maximum economic benefits (Gao et al., 2019). On the other hand, the dropouts escape from the constraints of school, and the new lifestyle can temporarily satisfy their psychological needs of curiosity, independence and freedom (Ou and Wang, 2007). As high as 55% dropout students in Bangladesh slums became migrant workers shortly after they dropped out of school (Hossen et al., 2018); the dropout students showed a similar trend in our study area (Table 5). The older students are more likely to drop out of school (Gao et al., 2019). The age gap of the dropout students was significantly higher than that of the non-dropout students (Table 3). The older students are likely to cause inferiority complex, leading to drop out of school. Our research showed that the dropout rate increased with grade (Table 2), which is consistent with the findings of many rural junior high schools in China (Min et al., 2016; Gao et al., 2019). Students with

psychological pressure due to entrance examination are likely to drop out of school. Dropping out of school is a natural reaction of students and their parents to avoid the failure of educational investment. The dropout rate of students with health problems is three times higher than that of students without health problems (Wang et al., 2015). Unhealthy has a significant impact on students' dropout (Table 4; Fig. 1). Early marriage has always been an important factor leading to the dropout of remote rural junior high school students (Li, 2012; Hossen et al., 2018). We found that although some of the dropout students did not reach the age of marriage and did not get a marriage license, they had already held a marriage ceremony. Some of them even had a child shortly after they left school.

5.1.3. School management factors

Boarding conditions can provide students with a sense of school life outside the classroom. Boarding students are affected by campus hygiene, diet, dormitory conditions, sports facilities, campus environment, library facilities, and so on. Since China implemented the poverty alleviation policy in 2016, the campus environment in poverty-stricken areas has been greatly improved. During the school inspection and home visits, I learned that the school generally provided two-meat-and-one-vegetable meals, added new books and sports goods, and many students received new quilts, new stationery, new clothes and cash donated by warm-hearted people. Improved school environment comfort might reduce the dropout rate (Table 4; Fig. 1), which is contrary to the conclusion of previous studies that poor boarding conditions and poor diets lead to drop out (Luo et al., 2012; Chang et al., 2016; Gao et al., 2019). It's not just our research that has found a large number of concealed dropouts (Fig. 2), a phenomenon already reported in Fujian Province of China (Liang, 2013). Schools with high dropout rate will be subject to pressure from the government and society, which will bring negative impacts to the schools. Therefore, the school will take various measures to conceal the truth.

5.2. Experience of persuading dropouts to return to school

During our home visits to dropouts, we found the main reasons for students' unwillingness to go back to school were as follows: (1) The hopelessness of further studies lead to the weariness of studies, and finally choose to drop out. (2) The consequences that some college students are unable to find employment or some college students have low incomes after employment bring about negative impacts, resulting in some people form the concept that studying is useless. (3) Some parents and their children have developed the psychological dependence that poor families will always get social assistance. Therefore, some students who have not bad achievements also drop out of school.

6. Conclusion

Our research found that family, school management and students themselves have a lot of potential factors leading to dropout. The dropout factors are complex and are the result of a combination of multiple factors. Whether to drop out of school is ultimately decided by the parents and students weighing the advantages and

disadvantages. Low achievers do not necessarily drop out of school, and high achievers do not necessarily remain in school. In order to reduce the dropout rate, the government, society, schools, parents and students must cooperate with each other. Students who are absent from school need to be discovered in time and sent back to school during the first one or two days of absence, which helps to reduce dropout rates. The longer a student is absent from school, the less likely the dropout is to be persuaded to return.

References

Chang, F., Min, W., Shi, Y., Kenny, K., Loyalka, P., 2016. Educational expectations and dropout behavior among junior High students in rural China. China World Econ. 24 (3), 67-85.

Gao, S., Yang, M., Wang, X. H., Min W. B., Rozelle, S., 2019. Peer relations and dropout behavior: evidence from junior high school students in northwest rural China[J]. Int. J. Educ. Dev. 65, 134-143.

Hossen, S., Hira, A. A., & Mohsin, K. F., 2018. Factors responsible for students dropout at secondary education among slum children: a study on khulna city of bangladesh. Int. J. Adv. Innov Res. 6 (5), 542-552.

Kearney, C. A., 2008. School absenteeism and school refusal behavior in youth: A contemporary review. Clin. Psychol Rev. 28 (3), 451-471.

Li, J., 2012. Investigation and research on the reasons for rural students' dropping out of school in Western China. Teach. Manage. 6, 83-84.

Li, Z. H., Wang, W. H., 2017. Study on the dropout phenomenon of rural senior high school students in Western China - Based on the survey of 14 schools in 8 districts (counties)of Chongqing. Theory Pract. Edu. 37 (11), 21-23.

Liang, F., 2013. Hidden worries, trends and governance of rural junior high school students' dropout in the balanced development stage of compulsory education - Based on the investigation of three counties and four schools in Fujian Province. J. Ningde Norm. Uni., 1, 82-89.

Luo, R., Shi, Y., Zhang, L., Zhang, H., Miller, G., Medina, A., et al., 2012. The limits of health and nutrition education: evidence from three randomized-controlled trials in rural China. Cesifo. Econ. Stud. 58 (2), 385-404.

Ma, Q. R., 2008. The education division in Singapore and the solution of the rural school student drop-out in China. J. Hebei Norm. Uni., 10 (12), 15-19.

Mardolkar, M., Kumaran, N., 2020. Forecasting and avoiding student dropout using the k-nearest neighbor approach., SN Comput. Sci. 96 (1), 1-8.

Min, W. B., Chang, F., Wang, H., 2016. The non-economic factors contributing to junior high school student dropout in rural areas. Edu. Econ. 5, 73-77.

Ou, X, C., Wang, K., 2007. Voluntary dropout: a new problem in rural junior high school education in the new era. China Youth Res. 5, 62-65.

Qiu, X., 2005. Study on the drop out of high school students in Israel. Stud. Foreign Edu. 32 (9), 73-75+81.

Shi, Y. B., Zhao, X. X., 2016. Which is more influential to rural dropout: parents' migration for

work or school boarding? —Based on the empirical Aanalysis of 1881 junior high school students from three western provinces. Edu. Econ., 5: 78-83.

Shi, Y., Zhang, L., Ma, Y., Yi, H., Liu, C., Johnson, N., Chu, J., 2015. Dropping Out of rural China's secondary schools: a mixed-methods analysis. China Q. 224, 1048–1069.

Sun, Z., 2014. Study on the dropout of rural middle school students under the background of employed-out economy. J. Shijiazhuang Uni. Eco. 37 (1): 66-69.

Vaughn, M. G., Roberts, G., Fall, A.M., Kremer, K. Martinez, L., 2020. Preliminary validation of the dropout risk inventory for middle and high school students. Child. Youth. Serv. Rev. 111: 104855.

Wang, H., Chu, J., Loyalka, P., Xin, T., Shi, Y. J. , Qu, Q. H., Yang, C., 2016. Can social–emotional learning reduce school dropout in developing countries? J. Policy Anal. Manage. 35 (4), 1-39.

Wang, H., Yang, C., He, F., Shi, Y., Qu, Q., Rozelle, S., Chu, J., 2015. Mental health and dropout behavior: a cross-sectional study of junior high students in northwest rural China. Int. J. Educ. Dev. 41 (41), 1-12.

Yadav, V., Mehta, D., 2018. Issues and challenges of dropout students of Mirzapur District. Int. J. Adv. Innov Res. 7 (6), 2278-7844.

Yi, H., Zhang, L., Luo, R., Shi, Y., Mo, D., Chen, X., Brinton, C., Rozelle, S., 2012. Dropping out: why are students leaving junior high in China's poor rural areas? Int. J. Educ. Dev. 32 (4), 555-563.

Yuan, Y. C., 2008. On factor analysis and precautionary measures to high school drop out in America. Stud. Foreign Edu. 5, 3-6.