Impact of social network on contraceptive use among rural migrants in Shanghai China

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ABSTRACT

Using the data from "The survey for floating childbearing women in Pudong, Shanghai" in 2002, the paper analyzes the impact of the social network and social integration on contraceptive use by rural migrants. The results indicate that contraceptive use by women after entering cities tends to be of shorter effect and more variable compared with measures they use before entering cities. Weak ties and accelerate diffusion of diversified contraceptive use in this group. Women with fewer children ever born and greater social integration are more likely to change their contraceptive use.

Key words: social network, social integration, contraceptive use, rural migrants, China

BACKGROUD

Social network theory is not only a viewpoint of social structure but also a set of analysis methods and techniques (Xiao, 1999). Social networks refer to the relatively steady relations between individuals interacted . Social networks focus on individuals' interactions and relations, and social interaction will affect individuals' social behaviors (Carrington, 1988). Granovetter (1973) divided individuals' relationship into strong ties and weak ties according to the frequency of contact, depth of feelings, strength of intimacy, and amount of reciprocity between individuals. Researchers always define "relatives" and "friends" as strong ties, and define other relations as weak ties (Granovetter, 1995). At present, the related advanced systematic studies on social networks mostly concentrate on utilizing social networks on job mobility (Granovetter, 1973; Ensel, 1979; Bian, 2004), utilizing social networks on city community (Oliver, 1988), social support studies (Van del Poel, 1993), and social discussion networks and so on (Cai, 2003). Since 1990s, massive rural-urban migration in China has become a compelling social phenomenon. The number of migrating rural labour forces has increased from over 30 million in late 1980s to 99 million in 2003 (Lu, 2004). The rural migrants and their social influences have caused many researchers' attention, and the perspective of social networks has gradually been introduced into migration studies. The re-socialization process of rural migrants is at the same time a process of continuously re-building their social relations and social networks. Introducing the perspective of social networks into the studies of rural migrating people can help to understand their values, behavior norms and social

actions' changes in cities (Li, 2003). The networks of rural migrants have the characteristics of changing from social relations based on kinship and regions to social relations based on friendship and job relations. On the rural people's migrating from countryside, their informative resources, job hunting modes and social interactions in cities rely on the primary social networks based on kinship and regions, and the sub social networks based on friendship and job relations play the role of information bridge (Li, 1996; Cao, 2001).

The social networks that the rural migrants build in cities interact and inter-affect with their socia l integration, which refers to the cohesion of their values, behaviors and life styles with those of urban people's. The rural migrants with high social integration tend to accept the city's mainstream culture more easily (Wang, 2001), so they will have more contact with the sub social networks, and vice versa. Most studies on rural migrants' lives in cities adopt qualitative methods (Zhou, 1997; Ngai, 1999); while the few used quantitative methods are mainly basically descriptive ones (Liu, 2001). Rural migrants' social integration in cities mainly include the discriminations to them on their job hunting, medical care and old supporting, and the discriminations to them caused by their origins and poverty. Besides, language is a tool that citizens take to differentiate social circles. In big cities, local dialect is usually a standard to measure the urbanization degree of immigrations (Liu, 2001). Whether mixed living with local people or not may reflect the integration degree between the rural migrants and the local ones. These scattered living people don't live in relative concentrated immigration areas and don't have intimate relations with countrymen, and it reflects

their highly integration with their living cities.

Rural migrants gradually renew their values and behavior norms and incorporate themselves progressively into the mainstream society of cities during their interactions with networks (Carrington, 1988). The experience of working outside makes women enjoy independent economic statue, and changes their values, and increases their experiences, which subverts the traditional gender role and labor division of rural women (Silvey, 2003). Rural migrants will change the idea and behaviors of their childbearing and preference as a result of the affection of citizens' childbearing culture influences (Lee and Farber, 1984; Goldstein et al., 1997). The existing studies on the childbearing behaviors of rural migrants mostly focus on the number of birth and fertility level. Some studies show that the experience of working outside has some affection on rural women's idea and behavior of marriage and childbearing. The desired number of children and children ever born of women with this experience is smaller than that of women without it (Zheng, 2001). The migration will help to change women's idea of childbearing and to the fertility decline. Fertility changes with the time of migrating and inhabitation. Non-migrated people hold the lowest fertility level, and resident and migrating people hold the medium fertility level, and emigrant people hold the highest fertility level (Zhou, 1995; Goldstein and Goldstein, 1991; Yang, 2000).

The reason why migration can affect rural people's childbearing behavior is the effect of intermediate determinants. The intermediate determinants, or proximate determinants, are the biological and behavioural factors through which social,

economic and cultural factors affect fertility. Bongaartz (1978) put forward four principal proximate determinants play outstanding roles in fertility reduction, namely marriage, contraception, induced abortion and postpartum infecundability. Previous studies have found that marriage and contraception were the major factors in China's fertility decline (Poston 1986; Tu 1995). Studies on rural migrants' contraceptive use can help to better understand the change of their childbearing behaviors. Contraception plays an important role in the fertility decline. The affection to fertility of contraception is related not only to contraceptive prevalence but also to contraceptive measurements. Contraceptive measures are divided into reversible and irreversible ones. Irreversible contraceptive measures include male sterilization and female sterilization, and reversible contraceptive measures include IUD, condom, oral contraceptive and other short-term contraceptive devices. The diversity of contraceptive measures refers to the diversity of women's choice among all kinds of contraceptive measures. Some studies indicate that the mainly determinants to contraceptive use of rural women in China are family planning and women's personal characteristics. Family planning has kept women's contraceptive prevalence at over 80% since 1990s, and most rural women use IUD after first birth and sterilization after second birth (Attané, 2002). Contraceptive prevalence increases with age, education levels and children ever born. Contraceptive measures vary with the sex of children and the economic status (Zhang and Wang, 1996; Wang, 2000). The existing studies on rural migrants' contraceptive behaviors are mostly descriptive analyses (Tao et al., 2000; Wu et al., 2001), while there are relatively few in-depth studies on

rural migrating women who stay in cities.

Some studies on fertility in developing countries provide a new trend of thoughts to the study on contraceptive use of rural migrants. They show that the interactions of social networks play an important role in the transition related to birth control (Kohler et al., 2001; Montgomery et al., 2001). Once contraceptives are adopted by a group in a community or by a community in a society, social interaction factor will become impetus to accelerate community change. Studies on the relations between social interactions and fertility in developing countries manifest that women choose contraceptive measures through informal networks (Montgomery and Chung, 1998; Stash, 1999; Boulay, 2000). During the process of the birth control behaviors' change from non-contraception to contraception and contraceptive measures' change from traditional ways to modern ones, networks' interactions play an important role. Existing studies on social networks' influence on contraceptive use are mainly about the developing countries without family planning or with relatively loose family planning. China has relatively strict family planning, which leads a relatively high contraceptive prevalence and a high rate of long-term contraception. When rural women migrate to cities, the patterns as well as the change of their contraception vary greatly with other developing countries. With this context, studying migrants' contraceptive behavior in the perspective of social networks and social integration should be based on different influence factors and mechanisms, but to date there are few such studies.

In short, previous studies on childbearing behaviors of migrants mainly focus

on analyzing fertility level, and seldom use social network theories to study how idea and behavior of migrants transmit among individuals through networks and the change of their childbearing behavior microcosmically in the process of China's social change. This paper exploringly analyzes the social networks and social integration of rural female migrants as well as their influences on their contraceptive behavior.

STUDY DESIGN

Analytic Framework

This study aims at exploring the change of contraceptive use by women after entering cities compared with measures used before entering cities from the perspective of social network and social integration. There are three possibilities for the change of contraceptive use, the first one is from non-contraception to revisable and short-term measures; the second one is the transforming among various revisable and short-term measures; the third one is from reversible and short-effect measures to irreversible measures. The first two variations show the assimilation of contraceptive use between the rural migrants and urban residents, and the third one represents the influence of the family planning.

This paper proposes an analytic framework to study the change of contraceptive use by rural female migrants, which is shown in Figure 1. Figure 1 shows that the change of contraceptive use is influenced by multi-level factors. Individual factors and migration factors influence each other as well as these factors influence the individual's social network and social integration; the migrants are exposed to urban

culture through the social network in the city, the social network and the social integration interact each other, and then they may have impact on contraceptive use by migrants and make their contraceptive behavior converge with that of urban residents. Individual factors and floating factor not only directly influence the change of contraceptive use, but also indirectly influence it through the social network and social integration.

Figure 1 here

Based on the analytic framework, this paper expects that contraceptive use by rural female migrants is tended to using short-effect and reversible measures influenced by the city childbearing culture, and furthermore their social network and social integration have certain influence on the change of their contraceptive use. The relevant hypotheses as follows:

Hypothesis 1: If the female migrants stay longer in the city and live together with their husbands, their contraceptive use are more likely to be transformed into short-effect and reversible measures.

Hypothesis 2: Contraceptive use by the female migrants whose social relationship and social support are mainly weak ties are diversified.

Hypothesis 3: The information sources of contraception have certain influences on the contraceptive changes. Contraceptive use by the female migrants who got contraceptive information from their husbands and sisters as well as propaganda of family planning are not easily to be changed, while that of whom got contraceptive information from mass media is more

tended to using short-effect and diversified measures.

Hypothesis 4: Contraceptive use by the female migrants who live mixedly with Shanghainese and people from other places as well as are seldom discriminated from local people and can speak relatively good Shanghainese are easily to transform themselves to short-effect measures.

Data

Data used in this paper come from a cooperated project of "The Survey for Floating Childbearing Women in Pudong, Shanghai", by Fudan University and Xi'an Jiaotong University in 2002. The Pudong newly developed area is a delta-shaped area in Shanghai, which locates in an area that is to the east of the Huangpu River and to west of Yangtze River, and situates at the intersection point of the center of our country coastline and seaport entrance of Yangtze River. The area in Pudong is 556 square kilometers, and its total residents are 2.4 million. Pudong has been the high-tech industry and the modern industry base with the development of high-speed economy since 1990; it is a key point and a symbol of the reform and opening-up policy during the 1990s in China. Employment opportunity created by its rapid economic development in Pudong has attracted massive migrants. Non-native population has increased 1.40 times in three years from 732,800 in 2000 to 1.02 million in 2003, which accounted for 42.5% of total residents(Zhang et al., 2004) .

The objective of this survey was to explore the attitude and behavior of marriage and childbearing of rural female migrants. The survey targets included childbearing

women aged from 15 to 49 years old whose household registers are out of Shanghai. The survey of a whole area consisting of 24 streets or towns was divided into two stages. In the first stage, four streets or towns were selected using “simple random” sampling method. And a series number was assigned to each street or town, then four random numbers from these 24 numbers were got. These four numbers corresponded to the following streets or towns: MEIYUAN Street, JINYANG Street, HUDONG Street and CHUANSHA Town. In the second stage, with the name list for the female migrants in the sampled streets or towns served as sampling frame, we encoded all the women in the list and then chose 280 women from the list using “simple random” sampling method by computer program. Then interviewers conducted the survey based on the sampling code with the support of cadres in sampled street or towns.

About the field survey, some changes or adjustments were introduced because of the mobility of the targeted women. The principle was that if the sampled woman was not available during the survey and the total surveyed women was not reached 250 for each street or town, she would be replaced by her neighbor number in the list.

The survey was implemented from July 20 to July 31 in 2002. 12 experienced interviewers were employed after being trained by the staff who designed the questionnaire. During the field survey, two supervisors carried the quality control to safeguard the survey to be representative and confirm to the preset goals. There were 1,015 childbearing aged women in the survey.

The contents of the survey involve information of the respondent’s basic situation, marriage and family, childbearing and old supporting, and social

communication. The questionnaire consists of four parts: respondent's characteristics, age and education etc.; questions on the respondent's marriage and family, age at first marriage, relations with her husband, opinions on premarital pregnancy and extramarital love etc.; questions on the respondent's childbearing and old-supporting, desired number of children and children ever born, contraceptive use, and plans for old-supporting etc.; questions on the respondent's social communication, chief communicable persons in her hometown and in Pudong, frequencies of communications, current major information sources, living conditions, degree of being discriminated and dialect etc..

Method

The focus of this study is on the first two changes of contraceptive use, which are the transitions tended to be short-effective and revisable measures by migrants influenced by urban childbearing culture, as the fact that the percentage rate in the samples from short-effective and reversible measures to irreversible ones is very low (less than 1%).

This paper focuses on the rural female migrants married before entering Pudong in order to meet the need to study the change of contraceptive use before and after migration.

Firstly, the paper utilizes the single variable analysis to exam the transition of contraceptive use among the rural women before and after migration in order to explore the occurrence of the change. The contraceptive use before migration are influenced by the traditional childbearing culture in their hometowns and birth control

policy, while the contraceptive use after entering city tends to the short-effect and diversified measures influenced by urban childbearing culture. As the fact that some women had the experience worked in other cities before they first entering Pudong, the relevant experiences also possibly influence their contraceptive behavior, it is necessary to remove the relevant influences. Therefore these women are excluded from the analysis, which leaves 277 cases in this part.

Secondly, this paper utilizes Logistic regression to analyze the influence of social network on transition of contraceptive use and to explore whether the interactions accelerate the diversification of contraceptive use in floating people after controlling the individual variables, migration variables and variables of social integration. The women adopted sterilization before floating are excluded in this regression analysis, which leaves136 cases in this part. The variables in regression analysis are summarized as following:

Dependent Variable: Whether changed contraceptive use before and after migration.

Independent Variables: This part include social network, social integration and migration variables influence contraceptive transition. **Social network variables** include three ones: ***Social communication***, the answering choices of "Frequent communicable persons at present" in questionnaire are merged into two categories: strong ties, which include the choices of hometown relative in Shanghai and go-together emigrant workers; and weak ties, which include the employer, Shanghainese colleagues, friends acquainted in Shanghai and others. **Social support**,

the answering choices of "Who can you seek for help in case of financial difficulties?" in questionnaire are merged into two categories: strong ties, which include family members, relatives, friends and fellow-townsmen; and weak ties, which include workmates, employer, local police station，residential committee or other frequent communicable persons. **Source of acquiring contraceptive knowledge,** the multiple choices of "How do you get information about contraception?" in questionnaire are summarized into personal or impersonal channels. We divided the choices of the question into three categories, each category is binary variable: family planning propaganda, personal channel included information from husband and sisters, mass media included TV program, radio program and papers or magazines. **Social integration variables** included three ones to measure the degree of cohesion of rural migrants with city. The three variable are corresponding to these questions "what about housing conditions?", "Are you discriminated by local Shanghainese?" and "Can you speak shanghainese?" **Living condition** is divided into three categories: Living together means living in a relatively independent area with people from other places outside Shanghai, Scattered living means her living apartment surrounded by local Shanghainese, mixed living means living mixed with Shanghainiese and people from other places. The questions of both whether are you discriminated by Shanghainese, and Whether can you speak shanghainese are merged into two kinds according to their answers as yes or no. **Migration variables** in this paper only include one variable. **Duration staying** is divided into four categories which represent floating variables: less than 1 year, 1 to 2 years, 3 to 4 years and 5

years and above.

Control Variables: These variables mainly included **individual variables**: **Children ever born** is divided into four categories: no child, 1 , 2 and 3 and above. **Women's Age** is divided into three categories: 24 and below, 25 to 34 and 35 and above. **Women's education** is divided into three categories, primary school and below, junior high school , senior high school and above. **Living with husband** is divided into yes or no.

RESULTS

Descriptive Analysis

There are 641 rural married female migrants in the sample analyzed whose age are from 22 to 49 years old, and their average age is 31.9. Among all these women, 99.9 percent is Han nationality, those who with junior high school education account for 60.3 percent and senior school only account for 9.9 percent. Those who with 1 child account for 71.9 percent and with 2 children account for 18.1 percent.

This paper firstly compares the contraceptive use by rural migrants before migration with that after migration to explore whether there are the fact of change. Table 1 shows that sterilization proportion rose slightly, the proportion of reversible measure (IUD) kept same and the proportion of other measures (condom, drugs and other) rose 5.4%, but the non-used proportion of contraception dropped 13.9% dramatically by the 277 women who married before entering Pudong The statistical test shows that the transition of contraceptive use is extremely significant. Many rural women adopt contraception and the contraceptive use tended to choose the reversible

and short-effect measures after migration.

Table 1 here

Table 2 provides descriptive information of variables in the Logistic model of the transition of contraceptive use by the rural female migrants. In the perspective of social network, the proportion of strong ties is higher than that of weak ties in communication person after floating (67% and 33% respectively). Social support is represented from analyzing the economical support in this analysis, this kind of support mainly comes from the primary relational network (blood relationship, friend relationship and geographical relationship).The contraceptive knowledge is mainly obtained from family planning propaganda and mass media, while the knowledge from the husband and the sisters account for the certain proportion (40%). In the view of social integration, local people seldom discriminate against them (33%), and 26% of them can speak and understand Shanghainese, both reflect that they enjoy a higher social integration degree. The duration staying in Shanghai of the majority exceeds 3 years. And women with 1 child accounts for a higher percentage. The high proportion of living together with their husbands indicates the common situation of husbands and wives migrating at the same time. Among these women, the fact that the age concentrated in 25 to 34 years old shows that they are young, and most of them received a relatively low education as junior high school or below.

Table 2 here

Logistic Analysis

Table 3 reports the estimated odds ratios of transition of contraceptive use after

migration of rural women to further study the determinants of their contraceptive change. There are four models in this logistic regression.

Table 3 here

Model 1 estimates the odds ratios of the change of contraceptive use influenced by social network. The result shows that, the risk of transition of contraceptive use for the women connected with weak ties is significantly 340% higher than that of those who are connected with strong ties, the risk transition of contraceptive use for information source of contraception from husband and the sisters is significantly 60% lower than other sources, the influences of mass media and family planning propaganda are not remarkable. Model 2 estimates the odds ratios of the change of contraceptive use influenced by social integration. The result shows that, the risk transition of contraceptive use for those who can speak Shanghainese is significantly 141.2% higher than those who cannot, and the influence of living condition is not significant. The risk transition of contraceptive use for those who are seldom discriminated from Shanghainses is significantly higher than those who are frequently discriminated, this is contradicted to the hypothesis of this paper. Model 3 estimates the odds ratios of the change of contraceptive use influenced by migration variables, the results show that the influences of duration staying and living together with husbands are not significant. Model 4 estimates the odds ratios of the change of contraceptive use influenced by all variables. The results show that, the influence to women connected with weak ties is still extremely significant, and the influence to women who can speak Shanghinese is significant, and the risk of transition of

contraceptive use for women with more children is low. While the influences of duration staying and living together with the husband as well as age and education are insignificant.

DISCUSSION AND CONCLUSION

The general hypothesis of this paper is basically supported that is social networks and social integration after rural married women's migrating have some effects on the changes of their contraceptive behavior . By restructuring their social networks, enforcing themselves communicate with the sub social networks, rural migrants acquire easily more information which couldn't be acquired from primary networks and further accept the cities' childbearing culture, which significantly increases the risk of the reversible and short-term contraceptive use. Based on the sources of getting contraceptive measures, we find that the interactions with primary social networks that refer to husbands and sisters block the way of contraceptive changing to short-term or diversified contraceptive measures. Based on the variable of social integration, we find that the contraceptive use by women who master the dialect better is easier to be changed, dialect fluency of one individual manifests its social integration. Women who speak dialect are more likely to be affected by city culture and to change their contraceptive use than those who don't. Based on the individual variables, we find that the influence of children ever born is also significant, The more children they have, the less choices of contraception they can adopt because of the ongoing family planning policy, and it is also difficult for them to change their contraceptive behavior.

Some hypotheses of this paper haven't been supported. Firstly, based on the variables of social network, it is clear that the weak ties of social support are not significant. One possible explanation is that social support in this investigation is limited by only analyzing the actual support of financial difficulty, and it can't reflect the influence to their contraceptive behavior. Secondly, based on the variables of social integration, the influence of discrimination is not significant. One possible explanation is that its influence is relatively weaker compared to the influence from social integration which is represented by dialect mastery. Contraceptive transition by women living with local citizens is significantly less than the one of women living with migrating people, which have to be studied further. As some scholars pointed out, even if living with citizens, citizens and rural migrants live in different worlds and they have different social networks (Li, 2003). District merges can't lead to communication and emotion merges naturally, we should study the transition of contraceptive use more based on relationship networks. Finally, duration staying in the city and whether living with husband of migrating variables as well as age and education of individual variables are not significant either. One possible explanation is that for migrants the influences of these variables are more reflected by the variables of social networks and social integration.

Migration facilitates the transition of rural women's idea and behavior. In the course of their cohesion with city's culture and society, their childbearing idea and behavior will surely be influenced by the city's childbearing culture. And this will then influence childbearing culture outflow as a result of their frequent floating

between cities and countries. When rural people migrate from countryside, their information resources, job-hunting modes and social interactions in cities rely on their primary social networks based on kinship and regions (Li, 1996). This conclusion is manifested in this paper. And this paper's analysis shows that the interactions between primary social networks and rural migrants go against the transition of contraception behavior, but the interactions with sub social networks and higher social integration go for it. The migration scale between cities and countries will be also extended in the future; contraception diffusion caused by it will promote the country's better implementing family planning policy. Therefore, the transition of new childbearing culture caused by the migration should be encouraged in order to promote the full and harmonious development of both rural and urban population. Personal interactions between social networks help people learn the benefits of birth control, which will help the ongoing of family planning and lead spillover benefits. Contraception diffusion of idea and behavior caused by rural women's floating between cities and countries can help the generalization of informed choice and the reproductive health of women, and let them really enjoy their rights of understanding, choice making and decision making to reach the target of policing centered 'the People'.

This paper has some limitations, too. Firstly, it only makes an exploring analysis in the perspective of social network and social integration. And the research on the transition of migrants' contraception behavior in this view is still in a tentative stage. Secondly, the information about social interaction and social integration gathered from relevant surveys focus only on facts and general situations after migrating,

which is not directly related to the discussion of contraception and interaction of behaviors. Therefore this inevitably affects the validity of the research results. Further researches on the influence of social networks on contraceptive idea and behavior after migration will make this paper's analyzing a continuous one.

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Table 1 Proportion of Contraceptive use by rural married women before and after migration （%）

	Sterilization	IUD	Others	Non-contraception	Cases	LR Test
Before migration	25.3	50.2	5.1	19.6		***
Cases	70	139	14	54	277	
After migration	28.9	54.9	10.5	5.7		
Cases	80	152	29	16	277	

Source: The Survey for Floating Childbearing Women in Pudong, Shanghai in 2001.

*** P<0.001

Table 2 Descriptive information of Variables in Logistic regression

	Mean	Variance
Independent variable		
Social network variables		
Social communication (Strong ties)		
Weak ties	0.33	0.22
Social support (Strong ties)		
Weak ties	0.09	0.09
Source of acquiring contraception		
Personal Channel (No)		
Yes	0.40	0.24
Family planning propaganda (No)		
Yes	0.91	0.08
Mass media (No)		
Yes	0.56	0.25
Social integration Variables		
Housing condition (Living together)		
Mixed living	0.23	0.18
Scattered living	0.56	0.25
Discrimination by Shanghainese (Yes)		
No	0.67	0.22
Speaking dialect (No)		
Yes	0.26	0.19
Migration Variables		
Duration staying (0 year)		
1-2	0.25	0.19
3-4	0.26	0.19
5^{+}	0.39	0.24
Living with husband (No)		
Yes	0.89	0.10
Control variables		
Individual Variables		
Children ever born (0-1)①		
2	0.12	0.11
Age (24^{-})		
25-34	0.69	0.22
35^{+}	0.26	0.19
Education ($Primary^{-}$)		
Junior high	0.61	0.24
Senior $high^{+}$	0.04	0.04
Cases	136	

Source: The Survey for Floating Childbearing Women in Pudong, Shanghai in 2001.

Variables in brackets are reference variables.

① Women without child only accounts for 0.01% , then 0 and 1 children ever born are merged in the following regression analysis.

Table 3 Odds ratio of transition of contraceptive use by rural women after migration

	Model 1	Model 2	Model 3	Model 4
Independent variable				
Social network variables				
Social communication (Strong ties)				
Weak ties	4.400**			5.414**
Social support (Strong ties)				
Weak ties	0.437			1.034
Source of acquiring contraception				
Personal Channel (No)				
Yes	0.403+			0.647
Family planning propaganda (No)				
Yes	1.695			3.435
Mass media (No)				
Yes	1.608			0.915
Social integration Variables				
Housing condition (Living together)				
Mixed living		0.368		0.065*
Scattered living		1.340		0.349
Discrimination by Shanghainese (Yes)				
No		0.377*		0.393
Speaking dialect (No)				
Yes		2.412*		3.446+
Migration Variables				
Duration staying (0 year)				
1-2			0.644	0.940
3-4			0.588	0.757
5^{+}			0.866	0.583
Living with husband (No)				
Yes			2.752	4.150
Control variables				
Individual Variables				
Children ever born (0-1)①				
2				0.164*
Age (24^{-})				
25-34				3.733
35^{+}				2.469
Education ($Primary^{-}$)				
Junior high				0.928
Senior $high^{+}$				5.121
Constant	0.104*	0.425+	0.168	0.111
–2LL	133.381*	166.67**	193.136	113.014
Cases	145	170	178	136

Source: The Survey for Floating Childbearing Women in Pudong, Shanghai in 2001. ***P<0.001， **P<0.01， *P<0.05， +P<0.10

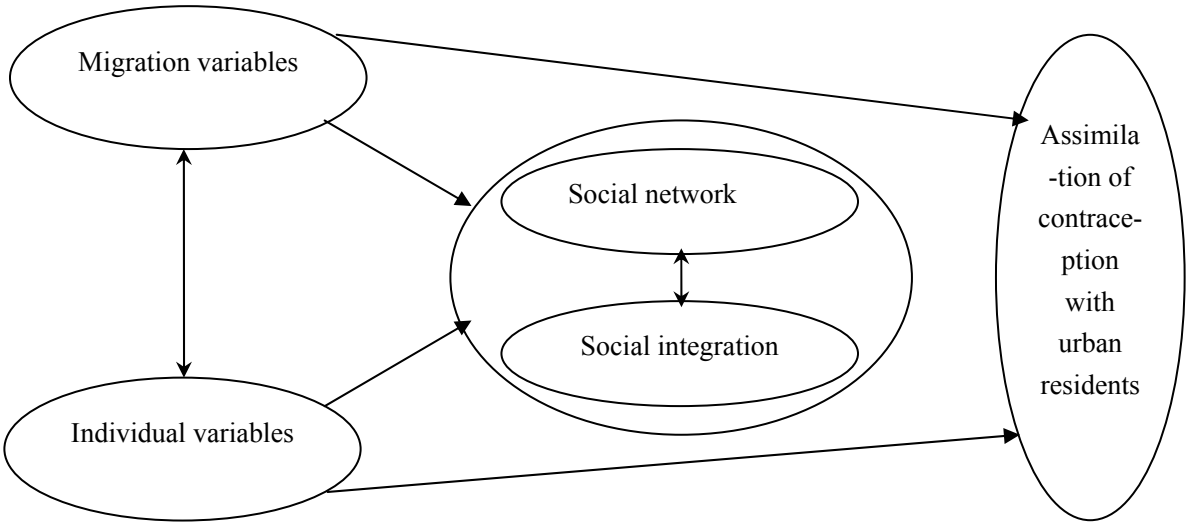

Figure 1 Analytic framework of transition of contraceptive use by rural female migrants