Dropouts and Social Determinants of Health; Policy for the Prevention of School Dropout, Qualitative Study of the Causes and Interventions

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ABSTRACT

Background: Indicators of the level of education are the most important parameters influencing each country’s development. Social indicators considered to be a determinant of one’s health consists of two constituents namely; (1) Rate of students enrolled in elementary, guidance, secondary and higher education and (2) the rate of adult literacy. This study is aimed to evaluate the situation of school dropouts in Iran, their causes, and appropriate interventions.

Methods: Data were collected through literature review (including published researches and analysis of documents), focus group discussions with the presence of experts from (Department of Community Health, Academy of Medical Sciences) and interviews with stakeholders then these data were classified and presented in three sections namely; current situation, causes and solutions.

Results: Results showed that Iran’s current situation in terms of school dropouts is unsatisfactory in comparison to developed countries and in some countries in the region. Influencing factors for school dropouts were classified into (1) Individual factors such as intellectual disability and behavioral disorders (2) group factors such as peer groups, family problems and children's reduced interests in school and (3) major factors such as educational system and the changes of value, economic, cultural, and political issues.

Conclusions: The present study, with the presentation of statistical documents specifically of the current problem of school dropouts in all levels of the Iranian society has been determined and aside from identifying the causes and factors affecting school dropouts, provision of strategies in three levels of prevention to combat this problem has been addressed.

Keywords: Health, school dropouts, social determinants of health

INTRODUCTION

Every student who enters in the formal education system of the country has the possibility to be promoted to a higher grade, or face academic failure and repeat that level on the next school term and or finally face school dismissal. Dropping out means quitting school, majority of school dropouts happens at the
beginning and or the end of the final term. Students who were enrolled in the previous year and failed to enroll in the next following year is an indicator for determining the level of school dropouts.\cite{1,2} If a student fails to achieve the minimum criteria set by the education system, this would result to academic failure or school dismissal and or result to frustration and disappointment and finally dropping out of school.\cite{3}

Study conducted in Virginia, USA, indicated that the average income of students with school failures is 27%, lesser than those who have completed high school, this on the long term would reduce the personal investment lesser than what the community intended to spend, also, on average, students who quit school during high school would live lesser than a decade in comparison to students who finished high school and are more at risk of cardiovascular diseases, diabetes and obesity. One percent reduction rate of school dropouts would result to about a hundred thousand reductions in criminal charges while 1% increase in graduation rate is associated with a 20% reduction in murders and arrests.\cite{4} Studies conducted in developed countries have shown that an increase of academic graduates per year would result to a reduction of mortality (regardless of age) by 8%.\cite{5} In the United States of America, a study conducted on the relationships between education and risk factors on 2380 participants indicated that for every 4 years of more education would result to 11% reduction in the prevalence of smoking, 7 days/year decreased in the prevalence of alcohol consumption, 5% decrease in obesity and 6% decrease in the prevalence of illegal drugs abuse.\cite{6}

In accordance to article 26 of the universal declaration of human rights, “everyone has the right to education and everyone is entitled to a free education at least in the elementary and fundamental stages. Elementary education shall be compulsory. Technical and professional education shall be made generally available, and higher education shall be equally accessible to all on the basis of merit.”\cite{7} Furthermore, in our county’s upstream documentation such as in section 10 of Iran’s approved 1404 vision, article 6 of the universal convention on education for all,\cite{8} paragraph A and B of article 52 of the country’s development programs and also, paragraph A of the 4 axis of the integrated documents on sectoral and cross-sectoral 5 years development program of the country has emphasized on the development, improvement, student welfare and cost effectiveness of the country’s formal education.\cite{9,10}

Some education theorists have classified the causes of school dropouts into four groups; child related, family and dysfunctional families, community and environment outside school and school-related causes\cite{11} and also, UNESCO’s report on the causes of dropouts have been classified in this manner: Factors related to pupils and their families, factors related to teachers and factors related to the educational system and school and factors related to common environment.\cite{12}

Rahimi (1994) in his study entitled “study on the social, economic and cultural characteristics of the 3rd grade guidance school male students in Tehran with a history of academic failure” common factors such as low sociocultural level of the family, absence of leisure programs and low economic levels among this group have been pointed out.\cite{13} Mosahebi in his study entitled “evaluation of academic failure in the guidance school” expressed that economic and social causes are the reasons leading to school dropouts and presented strategies in this regard.\cite{14} In our country, limited and sporadic studies have been conducted regarding dropouts causing neglect in community policies, holistic views and effectiveness in dealing with this problem. In considering the fact that efforts have been done specifically on improving the country’s human development indicators on the average years of schooling, an intervention that is cost effective, this study tries to identify the current status, causes and effective factors in the phenomenon of school dropouts and present guidelines to prevent and control this problem and take steps towards improving the human development indicators.

**METHODS**

Initially, all secondary data published in relation to school dropouts were collected and reviewed in order to explain education and in order to gain insight on the status of school dropouts and its trend on the last decade. Second, all programs implemented within the country together with its documents were collected, reviewed and analyzed. These documents include program evaluation reports and documents related to educational data and programs. Keywords and resources in the literature review are presented in Table 1.
Focus group discussions

One focus group discussion was conducted in August 2012 with the presence of 8 participants (two sociologists, one social psychologist, one social worker, one psychologist, one specialist in social medicine, one criminologist and one specialist in social welfare). The session was facilitated by a skilled moderator (B.D) and lasted for about 2 h. The aim of this focus group discussion was to identify causes of student dropouts and identify appropriate interventions in providing solutions to this problem. The session was audio taped and transcribed.

Semi-structured in-depth interviews

Through purposeful sampling, authorities and organizations directly involved in the phenomenon of school dropouts have been selected. Two persons from the deputy of health and physical education, the department of surveillance against social harm, two authorities from the deputy of education and culture, the general office of guidance and counseling, one authority from the program planning and school association for family education and parent counseling department were chosen to take part in the interview.

Of these five persons, we were able to persuade the deputy for education and culture, assistant director for educational affairs and counseling, the deputy for physical education and health and personnel from the department of surveillance against social harm and the chairman of program planning of the parent’s teachers association and counseling. Thus, the heterogeneous samples in terms of (education, gender, and age) were provided to stakeholders and experts. Finally, an interview were conducted to these five individuals (30–39-years old $n = 3$ and 40–49-years old $n = 2$) majority of the participants were in the collegiate level.

Before the interview, a formal notice was sent to each participant indicating the time and date of the interview [Box 1].

In order to increase accuracy and integrity and in strengthening the precision of the study in adhering to the ethical principles of data confidentiality; reporting, interviewing and the process of implementation was assigned to only one interviewer forces help (FH). FH is personnel of the social welfare organization and is an expert in conducting interviews for qualitative studies.

Ethical considerations

Eligible participants were initially approached by the section secretary then information sheet was distributed. Participants were advised of their rights to confidentiality and anonymity, and they were informed that they can withdraw at any time during the study.

Data analysis

A “denaturalized” approach was adopted for transcription, where idiosyncratic elements of pauses and nonverbal cues were removed. Data analysis was conducted according to the steps described by

| Table 1: Keywords and resources in the literature review |
|-----------------|-----------------------------------------------|
| **Key words**   | **Literature review resources**               |
|                 | United Nations Development Programs[16]       |
|                 | Universal Declaration of Human Rights[7]      |
|                 | Universal Pledge on education for all[8]      |
| Education       | Research Center of the Islamic Consultative Assembly[17] |
| Dropout         | A survey on the status of education coverage and illiteracy eradication[1] |
|                 | Facts about the 2011 Census[18]               |
|                 | Study on the multiple indicators on health and population[19] |
|                 | Rules and Regulations of the country’s 4th and 5th Development Programs[19,20] |
|                 | Collection of Documentations on the transformation and structure of the new educational system[21] |

Box 1: Interview questions

1. What is your opinion regarding the country’s present situation on school dropouts?
2. What evidence do you have regarding this problem? (Statistics, research, global standards and …)
3. In our country, what are the factors leading to school dropouts?
4. What strategies would you suggest in solving this problem?
Corbin. First in open coding each line of text was examined, and codes were attributed to individual words or sentences to categorize the data according to their meaning and actions. The code would often directly arise from the data, known as an in vivo code. Emerging codes were compared with existing codes using constant comparative analysis, to examine similarities or differences. Descriptions were given to codes to ensure reliability in the coding strategy and assist the audit trail. As data analysis progressed, relationships between categories were developed through axial coding. Constant comparative analysis and theoretical sampling continued until each category was saturated, and no new properties emerged.

Rigor
Koch and Harrington believed that the overall process of study is flexible, and the criteria for evaluation may be generated through self-study and then written in a detailed manner. Strategies employed in increasing rigor were as follows: All interviews and transcription of texts was done by one interviewer (F. G), periodic monitoring was done by an expert researcher in qualitative research (B. D), review of extensive literature was done by (M. R), questioner (F. H) and these persons have not hold any government positions specifically in the Ministry of Education. Notes and coding were returned to the participants so that in the presence of conflicting views, these will be resolved immediately. The exact words of the participants were used in analyzing the data.

RESULTS

Current situation
In Iran, the rate of school dropouts in grade five elementary students and in the 1st year Guidance school are reported to be 0.9% and 4% respectively also, the Commission on Education and The research center of Islamic Consultative Assembly, has reported that in 1999 the total expenditure for year repetition and school dropouts had amounted to 420 million tomans. Table 2 represents the result of the comparison between census statistics in 1990 and the student’s statistics on the survey conducted entitled “study on the multiple indicators on health and the population in Iran.” In this study, the rate of school dropouts has been obtained.

Literacy in Iran in comparison to the developed counties and the regional countries is less satisfactory while countries such as the UAE, Qatar, Bahrain and Kuwait, the literacy rate among 15-years old is 90% and in Saudi Arabia and Turkey the literacy rate is 86.7% and 88.7% respectively while Iran’s literacy rate is 82%.

Information and statistics on the expected literacy growth rate in Iran and in the Southeast Asian countries indicated that Iran, with its relative growth rate of 1.34, ranked fifth among the 24 countries in the region. While countries such as Afghanistan, Oman and Turkey have the highest relative growth rate and countries such as Kyrgyzstan, Uzbekistan and Tajikistan have the lowest relative growth rate. At present, the average years of education in Iran is 7.3 years which rank 15th from among the 24 countries in the region. This indicator is one of the components of the Human Development Index having the ability to change in a short term period and can cause improvement of this index. Therefore, if the aim of the country’s policymakers is fast improvement in the Human Development Index, this indicator should be addressed as one of the priority on their agenda. In this domain, policies that helped in the improvement of the country’s educational system and have contributed to the prevention of lower enrollments and school dropouts is of great importance. Despite the implementation of programs such as limitations of the number of pupils to be enrolled in each class and complete coverage of elementary students, electronic enrollment for the purpose of comparing the enrollment statistics and to

<table>
<thead>
<tr>
<th>Age group (years)</th>
<th>Census statistics</th>
<th>Percentage of dropouts</th>
<th>Number of school dropouts</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-10</td>
<td>5,573.011</td>
<td>3.32</td>
<td>185,023</td>
</tr>
<tr>
<td>11-13</td>
<td>3,381.220</td>
<td>12.68</td>
<td>428,738</td>
</tr>
<tr>
<td>14-17</td>
<td>4,900.549</td>
<td>27.08</td>
<td>1,327,068</td>
</tr>
</tbody>
</table>

Table 2: Comparison between census statistics in 1990 and the student’s statistics on the survey conducted entitled “study on the multiple indicators on health and the population in Iran”
track academic failures and the United Nations Development Program Report (2001) have indicated that the system of education in Iran in achieving the goals of scientific development, culture and humanity failed to gain success and ranked one among the 65 countries that failed to spend their income accurately in the direction of human development.[29]

**Causes of dropouts**
Focus group discussions and interviews were analyzed after implementation. Categories under consideration were extracted and were grouped into Tables 3 and 4. Also, in Box 2, some of the views pointed out by participants in the focus group discussion and interviews are presented.

Causes of dropouts are generally categorized into 3; individual and behavioral factors, group factors and major factors as shown in Table 3.

**Interventions**
Data collected indicated that several strategies can be implemented in order to reduce school dropouts and these can be divided into three categories: Primary intervention, secondary and tertiary interventions as shown in Table 4.

**DISCUSSION**
Causes of dropouts can be categorized into 3 levels namely; individual factors, group factors and major factors. In the individual level, the most important factors leading to school dropouts include; mental disabilities, malnutrition, attention deficit hyperactivity disorder and matters regarding adolescence. In the group level, predisposing factors to school dropouts include the following; economic problems, living conditions, peer groups’ influence and unattractiveness of the school for these students. Regarding the 3rd classification which is the major factors, continuous changes in the education system and the society’s system of values, cultural issues in various parts of the country, economic and political issues particularly in reducing cooperation with international organizations are factors contributing to school dropouts who have been mentioned earlier.

With regards to preventive measures, primary intervention can be implemented by strengthening the system of registry and to follow up school age children, reciprocating education to local needs and provide flexibility in educational programs in accordance to geographical situation as pointed out earlier. In the secondary preventive measures, identification of high risk students, educating parents regarding the consequences of school dropouts and secondary support has been mentioned while in the tertiary level of preventing dropouts, designing special programs for this group with the cooperation from various departments in order to attract students to return back to school has been pointed out by the majority of the participants.

**Strong points and limitations of the study**
The present study, by presenting figures and statistics, data specially on issues regarding school dropouts with a view of the present situation, this

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**Box 2:** views pointed out by participants in the focus group discussion and interviews

- Current educational approaches despite the present changes are still preserved so that knowledge and the issue of finding jobs and entrepreneurship for graduates will be very difficult” (participant no. 2).
- Program planners of the Ministry of Education and Culture should pay attention to Iran’s situation in making transition from traditional to being modern (Expert).
- Promoting the idea of materialistic life rather than idealistic thinking is one of the major aspect that influence thoughts and behavior of families and adolescents (Expert).
- In general, teachers are dissatisfied, majority has no motivation to teach and think that they have no sufficient rights (Respondent no.5).
- Statistics obtained from Prison Organizations and Security Measures in 1990 indicated that there were approximately 200 thousand prisoners living in prisons and more than 80% are illiterates. This should serve as a reminder to policymakers regarding public education. (Expert)
problem has been presented from the overall level of the Iranian society and in addition, through identification of factors that predispose students to dropping out from school, implementation of immediate and long term strategies in order to combat this problem has been taken into consideration.

Limitations in this study can be pointed to problems in accessing statistics and accurate information especially in the prevalence and incidence of the problem at community level. In addition, the problems of getting cooperation from the Ministry of Education are the other limiting and effective factors affecting the results of this study. Also, the lack of studies regarding the present economic situation in Iran and the problems of predicting outcomes regarding this issue is considered another limitation to this study.

Comparison with existing literature
Results of this study with the study conducted by Khani entitled “Assessment on the results of research conducted on assistant principals in the...
Table 4: Intervention categories

<table>
<thead>
<tr>
<th>Types of intervention</th>
<th>Proposed interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary interventions</strong></td>
<td>Necessary support in order to prevent dropouts</td>
</tr>
<tr>
<td></td>
<td>Revising methods of systematic interactions in education and in employment in order to reduce the problem on school dropouts such as; promoting and expanding the field of technical and vocational education in deprived areas in accordance to the needs of the community and in accordance to economic, cultural, gender and weather conditions</td>
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<tr>
<td></td>
<td>Formal notification to the Provincial and District Governors to consider this issue as a priority in the Council Planning and Provincial Development and Operational Program Planning for the implementation of emergency planning and strategic infrastructure within their authorities</td>
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<td></td>
<td>Designing and implementing a state of preparedness interventions in school in order to eliminate school factors such as continuing education for new teachers, academic development for teachers, active and continuous interaction with parents</td>
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<tr>
<td></td>
<td>Community’s awareness of this matter through mass media and introduction of anticipated incentives in towns, villages and in deprived areas</td>
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<tr>
<td></td>
<td>Identification of NGO’s and or establishment of new organizations in order to perform activities in this exclusive area</td>
</tr>
<tr>
<td></td>
<td>Implementation of flexible educational programs especially in rural areas taking into consideration the seasons for planting and harvesting, utilization of consultants in terms of qualitative and quantitative advises in the rural and regional areas since they are more knowledgeable in terms specific cultural problems, provide services and welfare facilities especially in schools in deprived areas such as road reconstructions, school bus for teachers and students, appropriate nutrition and sports facilities</td>
</tr>
<tr>
<td></td>
<td>Define priorities for applied and indigenous researches in order to address matters on school dropouts and application of their results in national and provincial program planning such as categorizing indigenous problems that lead to student’s repetition and or dropping out of school</td>
</tr>
<tr>
<td></td>
<td>Implement emergency plan in order to disseminate information and support families having children aging 6–10 years old to enroll in the primary level</td>
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<tr>
<td></td>
<td>Revising financial provisions and budgeting specifically in managing matters on school dropouts in the three categories of preventive infrastructure, screening and counseling of high risk students</td>
</tr>
<tr>
<td></td>
<td>Strengthen the identification and counseling of students who failed and design interventional support packages for pupils who are at risk of dropping school (such as establishment of funds to support indigent students with the indulgence of cooperation from various organizations and charitable institutions)</td>
</tr>
<tr>
<td><strong>Secondary interventions</strong></td>
<td>Educate high risk families of the outcomes of students dropping out of school</td>
</tr>
<tr>
<td></td>
<td>Develop interventional package in times of natural disasters in order to prevent children’s academic retention and school dropouts on affected families</td>
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<tr>
<td><strong>Tertiary interventions</strong></td>
<td>Establish information management systems for dropouts with the cooperation of Civil Registration Commission, Social Welfare Organization, the National Center for Statistics, and Ministry of Health and etc.</td>
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<td></td>
<td>Equal distribution of responsibilities throughout the country in decreasing school dropouts and create provincial competitions in order to improve relevant indicators</td>
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<td></td>
<td>Call for voluntary support from philanthropist for school construction and to change direction of its investments in funding children and adolescents who drop out from schools</td>
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<td></td>
<td>Designing and implementation of dropout revival package (promote the return of dropouts back to school)</td>
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<td></td>
<td>Establishment of special schools specially for students who drop out of school</td>
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<td></td>
<td>Designing a special program to identify and guide families with children who dropout from school and or children who have not enrolled within the vicinity of the city with the cooperation of the mayor</td>
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</tbody>
</table>

NGOs=Nongovernmental organizations

elementary and guidance schools have indicated that low level of education on the part of the mother and or the father, the long distance in commuting from home to school, loss of a father or mother, cultural poverty, lack of educational space, family problems such divorce, addiction, illness of parents
and the number of siblings were seen as factors contributing to school dropouts and this finding is consistent to the results of our present study. Also, findings of the present study and the findings of the study conducted by Eftekhari (2005), entitled “Assessment on the causes of dropouts on students in Avaj Qazvin, showed the following factors; economic, cultural, social, educational and welfare that played great impact on dropouts.

CONCLUSIONS

Performing researches aimed at designing supportive interventions for families having children aging 6–10 years that need to be enrolled in the primary education, study on the effective facilities for effective promotion of the existing situation on dropouts in villages, cities and the town’s outskirts and voluntary support in order to send a formal notification to the provincial and district governors throughout the country to consider this issue as a priority in the council planning and provincial development, were important issues proposed in this study. Also, creating a special committee under the chairmanship of the country’s president has also been recommended in order to address this problem.

In order to understand this social problem, it is necessary that researchers in the domain of public health must adopt new conceptual approaches and analysis and to view education as an area of intervention.

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