Effects of Working Full-Time and Studying in the Evening Hours Among Young Apprentices and Trainees

Andréa Aparecida da Luz, Miryam Cristina Maziere da Silva, and Samantha Lemos Turte, University of São Paulo, Brazil, Marildo de Oliveira Lopes, Faculty of Sertão Baiano, Monte Santo, Bahia, Brazil, and Frida Marina Fischer, University of São Paulo, Brazil

Objective: This research aims to assess apprentices’ and trainees’ work conditions, psychosocial factors at work, as well as health symptoms after joining the labor force.

Background: Despite the fact that there are over 3.5 million young working students in Brazil, this increasing rate brings with it difficult working conditions such as work pressure, heavy workloads, and lack of safety training.

Method: This study was carried out in a nongovernmental organization (NGO) with 40 young members of a first job program in the city of São Paulo, Brazil. They filled out a comprehensive questionnaire focused on sociodemographic variables, working conditions, and health symptoms. Individual and collective semi-structured interviews were conducted. Empirical data analysis was performed using analysis of content.

Results: The majority of participants mentioned difficulties in dealing with the pressure and their share of responsibilities at work. Body pains, headaches, sleep deprivation during the workweek, and frequent colds were mentioned. Lack of appropriate task and safety training contributed to the occurrence of work injuries.

Conclusion: Having a full-time job during the day coupled with evening high school attendance may jeopardize these people’s health and future.

Application: This study can make a contribution to the revision and implementation of work training programs for adolescents. It can also help in the creation of more sensible policies regarding youth employment.

Keywords: teenage working students, employment, decent work, health symptoms
the solution to financial problems, especially when parents are unemployed. Youth employment is also encouraged because it is related to lower risks of mortality from external causes and violence (Davila et al., 2010; Grupo Técnico de Estudos e Implantação da Aprendizagem Profissional, 2000).

The work environment influences both personal and professional development—particularly attitudes, values, and behavior. The changes in organizations in recent years—competitiveness, lack of training, poor working conditions—could compromise a young worker’s professional future (Loughlin & Barling, 2001).

Santana, Villaveces, Bangdwala, Runyan, and Oliveira (2012), analyzing data of 2006 from the Brazilian Ministry of Social Insurance (INSS), showed that out of almost 5,000,000 formal workers aged 16 to 24 years, a total of 59,381 received some form of compensation benefit from injuries from INSS. The cumulative incidence and density rate of job-related injuries were higher among workers aged 16 to 19 years than in the group aged 20 to 24 years. West, de Castro, and Fitzgerald (2005), discussing literature review on working youth, showed that work injuries were important in this age group compared to other at-risk groups. This was also confirmed by a number of studies: Breslin and Smith (2005), Runyan and Zakocs (2000), and Loudoun and Allan (2008).

Another almost invisible impact of youth work is the time management due to the competition between job duties, school, home, and extracurricular activities. This may lead to conflict and overload. The available time for leisure and social activities suitable with their age is limited (Teixeira, Fischer, Nagai, & Turte, 2004). In relation to sleep, Teixeira and colleagues (Teixeira, Fischer, Andrade, Louzada, & Nagai, 2004; Teixeira, Fischer, Nagai, et al., 2004) found that the work done by teenagers had a negative impact on the duration and perception of their sleep quality, with possible chronic sleep deprivation. Fischer, Nagai, and Teixeira (2008) showed that sleep deprivation during the workweek, particularly between students with working hours of ≥10.8 hours per day, was manifested by a sleep rebound on Saturdays. In addition, sociodemographic variables such as gender (female) and age (18–21 years) and lifestyles such as smoking and physical inactivity contributed to the reduction of sleep in this population.

The health impacts of youth work have gained visibility in recent decades (Instituto Brasileiro de Geografia e Estatísticas, 2009). The Brazilian government has recognized the importance of work for this population by creating laws and socioeconomic programs aimed to eradicate child labor and protect the adolescent worker. Among them are: (a) Law Number 10.097—Law of Learning, that regulates the hiring of apprentices, guarantees their rights and social security and the right to access and attend school (Brasil, 2000); (b) Law Number 8.069—Statute of the Child and Adolescent (ECA). Article 68 ensures the conditions for young people to get the necessary preparation in order to become skilled for regular paid positions, such as trainees (Brasil, 1990). Trainees do not receive some of the benefits mentioned for apprentices. Both cases are considered formal employment in Brazil. This age group is generally in high school. So, these people usually work during the day and go to school in the evening.

According to the Labor Market Observatory of the Ministry of Labor in Brazil, 660,689 young apprentices were hired and included in the General Register of Employees Employed and Unemployed (CAGED) between 2006 and 2010 (Observatório do mercado de trabalho nacional do Ministério do Trabalho e Emprego, 2011). Despite the increasing rate of youth employment, there’s evidence that it actually brings with it certain threats to young workers.

To our knowledge, there are no studies comparing apprentice and trainee work conditions and health symptoms according to the Brazilian laws. This study aims to describe and evaluate self-reports of the mentioned groups, assessing apprentices and trainees’ work conditions and psychosocial factors at work, as well as health symptoms after joining the labor force.

**MATERIAL AND METHOD**

**Study Participants**

The study was carried out in a nongovernmental organization (NGO) located in a low-income neighborhood in the outskirts of São
This NGO has been preparing and forwarding high school students to the job market for more than 25 years. Yearly, 300 youth benefit from its services. In addition to this, there is follow-up training and counseling provided for up to 2 years while these youth are working.

Research participants were 20 apprentices and 20 trainees aged 14 to 20 years (Table 1). They worked in different companies and different work fields but in a similar service sector. When the study was done, all of them had been working (6–8 hours) during the day and attending classes in the evenings (4 hours) for a period of 6 to 24 months. Apprentices attended the NGO training once a week for 8 hours, and trainees once a month for 4 hours.

Informed consent was obtained from all participants (students and their parents) prior to the beginning of the data collection. This study was approved by the Ethics Committee of the School of Public Health, University of São Paulo, Brazil.

The data collection took place between September and December 2009. The following instruments were used: individual and collective interviews and a sociodemographic questionnaire to obtain information about the trainees’ and apprentices’ working conditions and health symptoms.

Each individual interview was conducted in a private room lasting approximately 30 minutes. According to Minayo (2010) and Bordieu (1999), the interview process, as a technique of data collection in a research, should take into consideration the interaction between the interviewer and the interviewee. This way this technique allows the researcher to get closer to the structural conditions, value systems, social standards, symbols, and representations of a group.

The collective interviews were also conducted in a private room lasting approximately 80 minutes. Weller (2006) highlights the advantages obtained by this kind of data collection, especially when it is used in studies that involve youth. According to this author, when adolescents are among people from the same age group and social circle, they feel more comfortable using their own vocabulary. In addition, it enables an open dialogue that expresses much better their everyday life during the interview. Collective interviews allow moments of reflection about issues that the group had not thought about before. Then, in this discussion, it is possible to observe these youth sharing narratives of similar or different situations of their social realities (Weller, 2006).

This questionnaire had previously been used in other studies that involved youth (Fischer, Martins, et al., 2003; Fischer, Nagai, & Teixeira, 2008; Teixeira, Fischer, Andrade, et al., 2004).

In a private room, each participant filled out the questionnaire for approximately 20 minutes. They had the assistance of the researcher to resolve any doubts.

### TABLE 1: Sociodemographic Features of Study Participants, São Paulo, 2009 (n = 40)

<table>
<thead>
<tr>
<th>Sex, Age, School Education</th>
<th>Apprentices</th>
<th>%</th>
<th>Trainees</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>9</td>
<td>45</td>
<td>12</td>
<td>60</td>
</tr>
<tr>
<td>Females</td>
<td>11</td>
<td>55</td>
<td>08</td>
<td>40</td>
</tr>
<tr>
<td>Age (14–18)</td>
<td>18</td>
<td>90</td>
<td>18</td>
<td>90</td>
</tr>
<tr>
<td>&gt; 18 years</td>
<td>02</td>
<td>10</td>
<td>02</td>
<td>10</td>
</tr>
<tr>
<td>High school(^a)</td>
<td>15</td>
<td>75</td>
<td>13</td>
<td>65</td>
</tr>
<tr>
<td>College degree</td>
<td>05</td>
<td>25</td>
<td>07</td>
<td>35</td>
</tr>
</tbody>
</table>

\(^a\)Brazilian students in the 14 to 17 age group are usually in high school.

**DATA ANALYSIS**

We used the “Content Analysis” according to Bardin (2009). This technique assumes a systematic classification of empirical categories of the participants’ reports. The analysis consists of discovering the “units of meaning,” or themes of communication, in which presence or frequency are related to the objective (Bardin, 2009).
In order to operationalize this technique, the following stages are needed, as described by Bardin (2009).

**Pre-Analysis**

Organization stage consisted of three steps:

1. Reading: exhaustive reading of the material for the data impregnation, which is necessary for subsequent choice of the most promising material for the analysis.
2. Choice of the material: It was done by following the necessary rules pointed out by Bardin (2009)—exhaustivity, representativity, homogeneity, and relevance. In all, 32 individual and two collective interviews were analyzed in depth. Due to their elaborated content, they were more promising for a deep analysis.
3. Hypothesis and objectives formulation: choice of analytical categories—“work, schooling and health”—observing the objectives of this study.

**Material Exploration**

The category of analysis allowed the integration of the major themes to be explored:

- Reasons for joining the labor market
- Workload
- Work injuries and health symptoms
- Mental health
- Sleep
- Comparing health symptoms before and after having started working
- Legislation about working teens.

**Treatment of the Results and Interpretation of the Information Gathered**

The categorization consists of the classification of elements according to their similarities and differences. During this stage, researchers propose inferences, that is, they predict interpretation based on their theoretical studies.

**RESULTS**

Out of the 40 participants, 52.5% males, 90% were in the group aged 14 to 18 years and 10% aged 19 to 20 years. All of them were attending school in the evening—70% in high school and 30% in college. They worked mainly in the service sector (58%) such as telecommunications, law firms, accounting offices, insurance, and telemarketing companies; 42% were working in pharmaceutical, clothing, building material, and metallurgy industries.

Regarding the work duties, 60% performed office functions: reception and customer services; typing, dispatching, mailing, and filing of documents; handling office machines such as photocopiers; preparation of spreadsheets; dealing with inter-office envelopes; and handling money. Other workers were in telemarketing or were hired as factory floor workers.

When it comes to individual income, 77.5% of the studied sample were making the monthly minimum wage (around US$258) as required by Brazilian law. As said by 65% of those young workers, more than half of their salary was used to financially assist their families. This young workers’ assistance was a significant contribution, particularly to those families in the lower strata of family income: 42.5% of participants reported their annual household income reached US$9,200. The remaining 47.5% had a salary between US$15,000 and $30,000. It’s worth mentioning that there were about five people per household. The low family income was also related to their parents’ low-paying or low-status jobs. They tended to be maids, janitors, public school teachers, hairdressers, telemarketers, restaurant servers, and bus drivers. On the other hand, 10% of parents were unemployed.

**REPORTED THEMES**

**Reasons for Joining the Labor Market**

The personal and family financial needs were stated to be the main reason for those adolescents having started working at an early age. They also mentioned other aspects such as personal development, work experience, and parent pressure.

My family being broke was what strongly motivated me to start my first job. My father was unemployed. (15-year-old trainee)
My son motivated me to look for a job. (17-year-old female apprentice)

I intend to enter a very competitive college, and have noticed that the high school preparation will not be enough to enable me to succeed in the entrance exams. I work to save money to pay for a prep course. (16-year-old female apprentice)

Actually, it was pure pressure. My mother had always said she would only support me until I turned eighteen, and that had always scared me. (17-year-old trainee)

I needed to know the labor market because I had never had any work experience. I wanted to see what the business world was like, get experience, and grow professionally in the future. (18-year-old male apprentice)

**Workload**

We identified different reports on the performance of work activities. The majority of the adolescents mentioned difficulties in dealing with the pressure and their share of responsibilities at work. Performing their duties with commitment, achieving goals, and meeting the companies’ standards were complex.

Your boss is on top of you all the time. You get so exhausted that, in order to finish your work, sometimes you don’t even have lunch. I never imagined there was so much pressure. (16-year-old female trainee)

The apprentices forget the fact that they are in that job to learn. I train new employees. You get to a point when you teach and don’t learn anymore. (16-year-old apprentice)

We use headphones to talk to customers the whole time. No matter how much we want to take a break for a deep breath, it is impossible because there is a demanding workflow in the queue of tasks; I have to help each customer in three and a half minutes. (17-year-old apprentice)

A daily 8-hour Monday to Friday working time was reported by the majority of the trainees and apprentices (62.5%) whereas 22.5% were working 6 hours daily. The remaining 15% had a 6-hour working day, Monday to Saturday. Some of these young workers reported that they worked occasionally more than 2 daily hours of overtime in the last five days of the month. This occurred because of the job demands at the end of the month, such as balance sheets and substitutions for other employees on vacation.

I work in the administrative area. As soon as I started this job, I had to learn my functions in a week because my boss went on vacation. I was kind of doing her work. (18-year-old trainee)

The participants pointed out that a 40-hour working week had a harmful impact on their evening studies.

Working while still going to school is very difficult. Before I started working, I had never been absent from school. Nowadays, I usually get there in the second class, so I miss a lot. (15-year-old male trainee)

**Work Injuries and Health Symptoms**

Both the apprentices and trainees reported having only basic guidelines directed to operational activities in the company, except for a trainee who also had safety training. They also reported that they had little contact with issues related to safety and health at work during training programs in the NGO. We found that youth relate the words “accident at work” only to life-threatening situations or serious injury. When we used the phrase “getting hurt on the job,” they identified some situations that had already occurred (Figure 1 and Table 2).
The young workers reported that some environmental factors could cause discomfort or health problems, such as thermal discomfort due to the air conditioning, repetitive activities, and muscle pain as a result of continuous use of the computer during the day, carrying heavy objects, work pressure, and long distances between home-company-school. These same factors were also identified by 40% of the youth who got sick in the last 30 days. Their main symptoms were: muscle pain, headaches, the flu and colds, dizziness, weakness, respiratory diseases, gastrointestinal diseases, and stress.

Most participants reported that their health worsened after they had started working. However, some youth said that their health had improved due to the financial support (salary) to buy food and the access to health care provided by their employers.

**Mental Health**

The working conditions were mentioned as threats to mental health. The workers reported suffering psychological pressures related to the demands of the job and the lack of support.

I had no idea what the labor market was like whatsoever. It is different, exhausting. It expects a lot from you. It is mentally demanding. Getting stressed without having the right to express yourself deteriorates your mental health. (16-year-old male apprentice)

**Sleep**

The adolescent workers reported a daily reduction of 4 to 5 hours of sleep after having started working. At that time, they were going to bed between midnight and 1:00 a.m. and waking up between 5:00 and 6:00 in the morning. The evening school began at 7 p.m. and finished at 10:50 p.m. Their work shift began at around 8 a.m. The long distances between home-work-school-home, along with homework done after midnight, delayed the beginning of the sleep cycle and reduced sleep time.

I have to rush from work to be able to be in school on time. Sometimes I can’t even have dinner. I often get there in the second class. Besides, I get up very early. My workplace is far from home. I have to

---

*Figure 1. Health symptoms/outcomes reported by young participants since beginning work, São Paulo, Brazil, 2009.*
TABLE 2: Young Workers’ Reports on the Following Topics: Training, Work Injuries, and Claimed Reasons for Not Having Suffered Work Injuries

<table>
<thead>
<tr>
<th>Training</th>
<th>Injured at Work</th>
<th>Claimed Reasons for Not Having Suffered Work Injuries</th>
</tr>
</thead>
<tbody>
<tr>
<td>I had no training. They just gave me the headphone and were like: You’re gonna answer the phone because we need you to do this. We know you don’t know how to do it, but you have to. (17-year-old male apprentice)</td>
<td>Yes, not really suffering an injury, I, cut my fingers in the archives. (16-year-old female apprentice)</td>
<td>So, I sit all the time and don’t move much, that’s why, I suppose. (16-year-old female apprentice)</td>
</tr>
<tr>
<td>No, it wasn’t a training; the person vaguely told what I had to do and I’ve improved along the time. That person who was supposed to teach me didn’t do it very well so I had to handle it myself. (17-year-old female apprentice)</td>
<td>I have a problem in the shoulders. The muscle is inflamed. It may be the body position at work. It’s myalgia. (17-year-old male apprentice)</td>
<td>Because I sit all day in front of the computer and sometimes get up to print something. Although I have never got hurt, I sometimes have that tendinitis pain—which I got from typing. Sometimes I leave the office with a sore arm; but getting hurt, bleeding, no, these things have never happened. (17-year-old female apprentice)</td>
</tr>
</tbody>
</table>

Legislation About Working Teens

The apprentices and trainees mentioned doubts and difficulties to express what they knew about “youth labor law.” During the interviews, the majority of them said they either did not remember them or had never researched any information on the subject.

I’ve just heard but never got a chance to read about it. (16-year-old trainee)

No, not the Labor Law. I know the Apprenticeship Law and the Traineeship Law exist, but I’ve never been concerned about improving my knowledge base on my rights and obligations as an apprentice. (17-year-old apprentice)

DISCUSSION

The working time of 40 hours per week together with the period of school attendance in
the evenings were identified as harmful factors to young people’s health and education. The main negative consequences are related to time management and quality of life, as follows: reduction of the length of time for sleeping and eating, decrease of physical activity, body pains, stress, and frequent school absence or delays.

This study informs us about young people’s working conditions and health symptoms. Some outcomes found in other studies were confirmed in this one (Breslin & Smith, 2005; Facchini, Fassa, Agnol, & Maia, 2003; Fischer, Oliveira, Teixeira, Teixeira, & Amaral, 2003; Loudoun & Allan, 2008; Miller, 2010; Runyan & Zakocs, 2000), as described in the following discussion. The current study brings out new information such as: the impact of working 8 hours per day while still attending school in the evening—which may lead to sleep deprivation; the occurrence of work injuries in the office, during the performance of administrative tasks—although they are usually seen as safe tasks; comparison of young people’s perception of health conditions before and after joining the labor market.

Both young apprentices and trainees claimed they were performing jobs that were physically and psychologically similar to those of adult workers. In addition, they mentioned the impacts of the double shift (work and study) on health and also talked about the occurrence of work injuries.

The Brazilian legislation guarantees favorable conditions for adolescents to work. It also states that both apprenticeship and traineeship must keep its focus on learning, not on production or business. Starting a job that demands too many responsibilities, work overload, and that runs alongside the evening studies compromises young people’s health and quality of life (Fischer, Oliveira, et al., 2003; Miller, 2010).

The family’s financial situation together with the parents’ low-income jobs made a major contribution for those young people to join the labor force before finishing high school. The lower income of the adults of the family, the greater financial support families received from the young workers. This was also evidenced by Facchini et al. (2003) on a populational study on working children and adolescents in southern Brazil. The current study found that in general, the apprentices and trainees receive the same monthly income. However, since they are hired by different companies, the working conditions may vary.

Some young workers encountered a hostile environment, almost invariably focused on productivity and not on the learning process at work.

The young people already researched had a double shift before joining the labor market. That occurred during the training course, when they would attend classes five times a week at the NGO either in the morning or in the afternoon and would also go to regular school in the evening.

All the young workers who participated in this research reported having difficulties conciliating their personal life with their job and school. Moreover, they mentioned work overload and reduction in the time for leisure, studies, and social life. The concurrencies of these activities together with the social isolation were also detected by other Brazilian researchers (Amazarray et al., 2009; Campos & Francischini, 2003; Fischer, Oliveira, et al., 2003).

In the search for family recognition and social inclusion, the adolescents needed to work in parallel with their schooling. Staff and Mortimer (2008) warn that “early intensive work experience during high school is less conducive to longer-term education and wage attainments” (p. 1).

The analysis identified incompatibility and inconsistency between the young people’s working conditions and the legal dispositions. First, some companies’ interest in the productive aspects had been prevailing over the educational ones. This occurred particularly in telecommunication companies, where some of the teenagers were performing repetitive tasks and having long working days. In addition, this kind of work was being performed by underage people, which is strictly prohibited by related law and incompatible with a healthy physical, mental, and moral development (Brasil, 1990, 2000). An extensive review published by Carayon, Smith, and Haims (1999) showed that musculoskeletal symptoms are associated to combined factors of the work organization, work activities, and stress at work.
Fischer et al. (2005), studying teens at work, pointed out that besides the physical working stressors, the psychological factors must be taken into consideration. According to these authors’ studies on social control and social support, the psychological demands mentioned in the adolescents’ report were associated with body pain and the reduction of sleep during working days, which was related to a longer working day.

Long daily and weekly working hours performed by young people was observed in a study conducted by Teixeira, Fischer, Nagai, et al. (2004) to high school students in São Paulo (capital). These researchers mentioned that, together with their working time, these adolescents had to spend long hours daily in transportation, which is very typical in the city metropolitan area.

Teixeira et al. (2007), studying young workers’ sleep debt, stated that working during the day and going to school in the evening are difficult tasks that may compromise both school attendance and learning itself. In addition, Oliveira, Fischer, Teixeira, Sá, and Gomes (2010), in a study conducted on working adolescents, noted that working in parallel with schooling often results in a heavy workload routine, and this may jeopardize their sociocognitive development, harming their physical and mental health and academic performance.

Furthermore, the young workers reported performing 40 hours of concurrent activities besides eventual overtime work in order to be able to handle the work demands. The Ministry of Labor and Employment (MTE) provides a learning manual to institutions of methodical and theoretical vocational training—which states in item Number 44 and in the article Number 432 of the CLT (Consolidation of Brazilian Labor Laws) that apprentices (14–24 age group) and trainees (14 age group or older) are allowed to work 6 to 8 hours daily. Besides, “in any case, both compensation for overtime and extension of working hours are prohibited” (MTE, 2011).

Although potential work accidents were not identified among the young workers, other studies have shown that this age group is more likely to suffer injuries on the job (Frone, 1998; Loudoun & Allan, 2008; Runyan & Zakocs, 2000). The occurrence of work injuries as a result of performing administrative and commercial activities was not mentioned. Meanwhile, we noticed cases in which the lack of training on health and safety in the workplace probably made a major contribution to the occurrence of some events. Because of the adolescents’ unawareness of the concept of work accidents, the companies were evidently not concerned about including it in health and safety programs. These aspects demonstrated noncompliance with the Brazilian Labor Law and with the concept of decent work launched by the International Labour Organization (Brasil, 1990, 2000; Organização Internacional do Trabalho, 2009).

In spite of the extensive Brazilian legislation aimed to protect the adolescent workers, some employers violate the laws that deal with the issue and therefore keep individuals under harmful conditions that affect their biopsychosocial development (Asmus, Ruzany, Barker, & Meirelles, 1996). Most participants in this research did not know the legislation related to their work. Young workers who are unaware of their labor rights tend to perform work duties incompatible with a healthy physical and psychosocial development, as guaranteed by law.

Financial needs led these young workers to a double shift: working, going to school. We should promote opportunities for discussion (at school, at work, and during occupational training), debates, and reflections concerning labor and its impacts on young people’s life to enable them to cope better with the challenges and risks at work. Further studies should be developed among students to assess factors associated with young workers’ health conditions in different scenarios of work and life.

Study Limitations

This research has been delimited and carried out in just one traineeship and apprenticeship program, although there are hundreds of others in Brazil. So, this study is not a unique representation of a wider universe. The results shown here were not compared to the ones found in other programs. Therefore, other studies may show better or worse working conditions faced by trainees and apprentices.
Feedback to Participants

The feedback given to the study participants enhanced the NGO curriculum because it inspired the creation of a course module (part of the apprenticeship and traineeship) titled “Public Policies for Youth,” which addresses essential topics for personal formation and occupational training, as follows: legislation on youth labor, health and safety in the workplace, sexual education, sexually transmissible diseases, and quality of life.

ACKNOWLEDGMENTS

Financial support: CNPq (Grant No. 473138/2008-5); FAPESP (Grant No. 2008/51661-9).

KEY POINTS

- Labor makes a major contribution to young workers’ financial status and social inclusion. Nevertheless, specific public policies on this double shift (work and school) should be created. These regulations should particularly reduce and adapt working time to these students’ life circumstances. Most importantly, they should take into consideration that a good educational background lays the groundwork for these people’s sustainable future.

- The adolescents’ unawareness of legislation on their particular type of work, in most cases, led them to perform duties incompatible with appropriate personal development, which compromised their health and quality of life. It does not mean that knowing the risks of some types of work and knowing their rights guarantee that young workers will confront the employer and refuse to perform dangerous or incompatible work activities.

- Although apprentices and trainees were integrated into special programs and covered by specific labor policies, they reported the same nonconformities about their work conditions.

- Adolescents entering the labor market require special attention of the competent health and education authorities. Moreover, public policies on teenagers’ health should be implemented, aiming to prevent work-related diseases and work accidents, especially in developing countries.

- Labor has a significant impact on the teenagers’ physical and mental health. So, schools, occupational training institutions, employers, and the young workers must be involved in the discussion on the interface between labor and human beings, work organization, and the conciliation between work, school, and personal life.

REFERENCES


Andréa Aparecida da Luz is a psychologist and doctoral student at the Environmental Health Department, School of Public Health, University of São Paulo, Brazil. She completed her master’s in public health in 2010.

Miryam Cristina Mazieiro Vargueiro da Silva, a psychologist, received her master’s degree in preventive medicine from the University of São Paulo in 2009.

Samantha Lemos Turte is a psychologist and doctoral student at the Environmental Health Department, School of Public Health, University of São Paulo, Brazil. She completed her master’s degree in public health in 2011.
Marildo de Oliveira Lopes studied English and Portuguese literature and finished a specialization program in educational psychology in 2010.

Frida Marina Fischer is full professor at the Department of Environmental Health, School of Public Health, University of São Paulo, Brazil. She finished her PhD at the University of São Paulo in 1984.

Date received: February 11, 2012
Date accepted: August 22, 2012