

DOI 10.15805/addicta.2015.2.2.0011

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<http://addicta.com.tr/en/>

*Addicta: The Turkish Journal on Addictions* • Autumn 2015 • 2(2) • 23–44

ISSN 2148-7286 • e-ISSN 2149-1305

Received | July 19, 2015

Accepted | October 19, 2015

OnlineFirst | October 30, 2015

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## Extended Abstract

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# A School-Based Prevention Model in the Fight Against Addiction: Life Skills Training

Ayşe Esra İşmen Gazioğlu<sup>a</sup>

Azize Nilgün Canel<sup>b</sup>

## Abstract

This literature review study examines Life Skills Training, which has been widely used in the world; the development, planning, and implementation of prevention programs based on life skills and schools will be discussed. In this study, the concepts of life skills will be discussed first; information will then be given about Life Skills Training's structure and content; suggestions about its use in Turkey will be made after considering the studies that have examined the effectiveness of Life Skills Training.

**Keywords:** Life Skills Training • Addiction prevention • School-based programs

## a Corresponding author

Assoc. Prof. Ayşe Esra İşmen Gazioğlu (PhD), Department of Guidance and Psychological Counseling, Hasan Ali Yücel Faculty of Education, Istanbul University, Besim Ömer Paşa Cd. No: 11, HAYEF B2 Blok Beyazıt Fatih Istanbul 34452 Turkey

Email: ismen@istanbul.edu.tr

## b Assist. Prof. Azize Nilgün Canel (PhD), Department of Guidance and Psychological Counseling, Atatürk Faculty of Education, Marmara University, Kadıköy Istanbul 34722 Turkey

Email: nilgun.canel@marmara.edu.tr

Drug users were stated to have increased 8% each year in the 2005 World Drug Report (United Nations Office on Drugs and Crime [UNODC], 2005), prepared by the United Nations Drugs and Crime Office. Creating such statistics is very difficult for Turkey because systematic data regarding drug abuse in Turkey has only recently begun to be formed. In general, research on the subject mostly describes local characteristics and methodological differences; the cross-sectional study design has been used which predominantly represents students from high school and college. When leaving the limitations of studies' methodological limitations aside and Turkey is compared with the European countries or the USA, these studies give similar results revealing that the prevalence of substance use in Turkey is lower but has been increasing in recent years (Ögel, 2005). Studies that have been conducted showed that the onset age of substance use in Turkey also corresponds to the time of adolescence, as has been found in the rest of the world. According to the TUBİM (Turkish Monitoring Centre for Drugs and Drug Addiction) survey of 2006, the average onset age of substance use in Turkey was identified as 16.6. However the research report of 2011, published by TUBİM in 2014, observed the average onset age of first-time substance use was observed to be 13.88. According to the report, a significant increase in substance use was found in Turkey among the 15- to 24 year-old, single male with a monthly income level under 500 TL. In the research, it was determined that the prevalence of using tobacco, alcohol, and substances in Turkey would reach a certain level; as this is not a negligible qualification, Turkey needs to protect itself and make prevention plans (TUBİM, 2006, 2014). In 2007, a research commissioned by the Parliament (TBMM) in cooperation with the Turkish Statistical Institute (TurkStat) contacted 261 schools in 60 provinces and worked with 26,009 students in 2007. The results showed that 15.6% of students had used cigarettes and 16.5% of them had used alcohol at least once in the last month; 2.9% of them had also used a drug or stimulant in the last three months (TBMM, 2009). This situation indicates a need for skills-based prevention activities to minimize its prevalence, especially ones that target adolescents (e.g., Özmen & Kubanç, 2013; Siyez & Palabıyık, 2009). Researchers that have drawn attention to this topic have also mobilized the government. Indeed, the emphasis of life skills training is seen in the 2009 report of the Parliamentary Research Commission of TBMM formed in the fight against drugs with the sentence "in-service training programs should be

organized for implementing life skills training for all adolescents between the ages of 10 and 19,” (TBMM, 2009, p. 21), as the Western world has recommended for nearly 40 years.

Although there have been initiatives on this issue in Turkey, longitudinal effectiveness studies have not been encountered (Botvin & Griffin, 2004). Therefore, it is necessary to search for prevention models that can be used in Turkey and applied consecutively and comprehensively. In this study’s search for a prevention model that may be applicable to Turkey, the LST program initiated in 1979 by Botvin, a professor of psychiatry, was examined and its eligibility for national use discussed.

The LST program (Botvin, Baker, Dusenbury, Botvin, & Diaz, 1995) was recognized as a model or example program by government agencies such as the U.S. Center for Disease Control and Prevention, the National Institute on Drug Abuse, the National Cancer Institute, the Center for Substance Abuse Prevention, the Office of Juvenile Justice and Delinquency Prevention, and the U.S. Department of Education’s Safe and Drug-Free Schools Expert Panel. The LST was first tested in the United States as a secondary school program; however, it has been subsequently implemented in 33 countries worldwide (Velasco, Griffin, Antichi, & Celata, 2015). LST is an extensively tested approach for preventing substance abuse with an emphasis on teaching general, personal, and social skills; creating norms against the use of substances; and the skills to resist it (Botvin, Griffin, Paul, & Macaulay, 2003). This study aims to implement the concept of LST to Turkey by discussing the framework of titles, handling the concept of life skills, revealing the structure and content of LST, and advising how to use it in Turkey after examining studies on the effectiveness of LST.

### **Definitions of Life Skills**

LST has been seen for more than twenty years as an integral element for preparing youths to be active participants in society and to cope with the problems of adults and youths in daily life. At the same time, LST is thought to contribute to the quality of education. International, national, and political commitments have been made concerning LST (for example, Dakar EFA; UNGASS; UNICEF).

The first difficulty that is encountered in developing the conceptual framework of life skills is that there have been many definitions of this concept (Hodge, Danish, & Martin, 2013). It can be quite challenging to reach a clear recognition now that the concept refers to personal and social skills related to daily life; it is difficult to determine which skills are related to daily life and which ones do not (UNICEF, 2012). According to WHO (1997), the “skills which can be considered as life skills are numerous; their nature and definitions vary according to context and culture.” When examining programs in countries where LST has been implemented, instead of using common topics, a variety of contents are observed according to the needs of a country or region, from gaining professional and technical skills to healthy living skills, from developing self-confidence to finding a job (Jayaram & Engmann, 2014; UNESCO, 2012).

According to WHO, which is one of the first organizations to use this concept, life skills allow the production of more choice in increasing control over a person’s own health and environment. Life skills here refer to making decisions that include responsibility for a healthier life and choosing appropriate behavior. WHO defined this by expanding the concept to mean the “adaptive and positive behaviors that provide individuals with the ability to effectively cope with the challenges and demands that daily life brings.” Although this definition is meaningful, the main problem here is how to define and categorize the desired positive attitudinal and behavioral outcomes (UNICEF, 2012). WHO encourages school-based life skills programs now that they allow youths to make healthy lifestyle choices and steer their physical, social, and psychological well-being to the highest level. This organization has listed the most basic life skills in this context as follows (Pan American Health Organization [PAHO], 2000).

*Decision-making capacity* helps students to think carefully about the different results that may arise from their choices and to evaluate their options. *Problem solving capacity* helps students to find constructive solutions to their problems. This skill significantly reduces anxiety. *Creative thinking capacity* is a basic skill for problem solving and decision making. This skill helps students research all options along with all results. It helps students see beyond their personal experience. *Critical thinking capacity* helps students objectively analyze the appropriate information from their experiences and recognize the social values that affect their behaviors, such as peer influence and the media. *Effective com-*

*munication skills* help students express their own feelings, needs, and ideas to others, whether verbally or in different ways. *The capacity to build and maintain relationships between individuals* helps students enter positive interactions with those in their daily life, especially family members. *Self-knowledge* is a student's capacity to know who they are, what they want or don't want, and what they like to do or not do. At the same time, it also helps them recognize challenging environments. *The capacity to feel empathy* is the ability to imagine what the lives of people who live in quite different conditions are like. It helps students accept differences and develop interpersonal relationships with different people. *The ability to cope with emotions* helps students recognize their feelings and understand their impact on behavior. It focuses on learning how to cope with emotions such as anger, which can have an adverse effect on health. *The ability to cope with tension and stress* helps students to recognize the things that stress them.

WHO (1997) argues that basic life skills can be addressed in the framework of three components. These components are (1) *critical thinking/decision-making skills* which include problem-solving, decision-making, and critical and creative thinking skills; (2) *interpersonal/communication skills* which include effective communication and interpersonal skills, and empathy; (3) *coping and self-management skills* such as self-awareness and being able to cope with stress and emotions (Parvathy & Renjith, 2015). Aside from all of these, WHO (1997) has stated that different capabilities can be defined depending on the culture.

Gazda, Ginter, and Horne (2001) defined the life skills model through competences which must be fulfilled and that can be gained through developmental tasks during the years of childhood, adolescence, and adulthood. The life skills model they suggested is based on Brooks (1984) classification of four life skills. This classification is (1) interpersonal communication, (2) problem solving and decision making, (3) physical fitness and health, and (4) identity development and meaning in life. Life skills have been defined as "in addition to academic skills, all skills and knowledge which individuals can experience and which are necessary for an active life" (Gazda et al., 2001, p. 318). According to Danish, Forneris, Hodge, and Heke (2004), life skills allow individuals to be successful in the different environments they experience such as their school, home, and neighborhood. Life skills may be behavioral (able to engage in effective communications with adults or peers), cognitive (making effective decisions), interpersonal (being socially secure), or intra-individual (creating objectives).

According to UNICEF (2012), “general life skills” are listed in the form of (1) *Cognitive* (cognitive, critical thinking, and problem-solving skills for making decisions; it includes responsibility), (2) *Personal* (self-awareness skills for individuals to manage themselves), (3) *Interpersonal* (skills for participating in social groups, empathizing with others, speaking on someone else’s behalf, negotiation, cooperation, and team work). Today, another term which has been put forth in the framework of this concept is *21<sup>st</sup> century skills*, which are a combination of life skills. Twenty-first century skills consist of new kinds of skills and behaviors that will enable economic growth and development as well as allow people to live autonomously. These skills and competencies can be defined as “psychosocial resources including knowledge, skills, motivations, attitudes, and other social and behavioral components,” (Buchert, 2014).

Although ideas located at the core of life skills about what psychosocial skills could be has started to come together at certain points; there is no clarity on the relationship of skills to each other as there has been no definitive list or classification of these skills. However, skills which can be defined as life skills are classified differently by different people and institutions; cognitive, affective, and behavioral aspects of individuals have been observed to exist under the headings of life, individual, and interpersonal. Research and social sciences have emphasized how important these skills are for our wellbeing, for being active in life, and for having a meaningful and satisfying life (UNICEF, 2012). Therefore, different programs related to the acquisition of basic life skills have occurred.

### **Life Skills-Based Programs**

Research which has been conducted in America and England provides evidence for the effectiveness of many approaches that enhance life skills. Many of these approaches demonstrate better results than traditional teaching approaches (e.g., Errecart et al., 1991; Perry & Kelder, 1992). Their important positive impact has been seen in health behaviors such as smoking and using drugs (Botvin & Griffin, 2005), compliance at home and school (Alpert-Gillis, Pedro-Carroll, & Cowan, 1989), increasing social competence and decreasing psychopathology (Elias, Bruene-Butler, Blum, & Schuyler, 2000).

Psychosocial skills that can be applied universally to all people, allowing them to be productive, to participate in society, and to cope with the difficulties individuals face are called *general life skills*. Educational interventions including issues such as citizenship, public health, human rights, and equality are associated with life skills. This information is considered to be universally applicable to all social classes and cultures in both developed and developing countries. However, LST was developed as a response to specific problems and risks such as HIV, conflict, and substance use. Some life skills have been associated with the effort to cope with these risks and problems. Thus, life skills have occurred in certain subject areas as *content specific*. These skills are usually given with subject knowledge that is specific to the content during application (UNICEF, 2012).

UNICEF has played a significant role in the development and initiatives of LST. LST programs supported by this institution have been organized in 156 countries. As examples of content-specific life skills, life skills-based health education and substance-abuse prevention activities can be given. Life skills-based health education has been used internationally for many issues related to health such as HIV prevention, nutrition, early pregnancy, violence, and drug use (for example, WHO, UNESCO, UNICEF, etc.). WHO (2003) has published the most comprehensive guide-book on life skills training with the participation of many partners, also including UNICEF. According to this guide-book, skills-based health education is an approach which uses a variety of learning experiences that emphasize participatory methods and developing knowledge, attitudes, and skills to create and maintain healthy lifestyles and conditions. This approach may offer opportunities for youths to create different scenarios, search for different choices, ponder these choices and the things that interest them, and understand how decisions can be made in a manner that protects the health of others and themselves.

When the subject is at-risk youth, life skills training programs may occur as classes or programs for rural youths, programs for young people living in the city, or programs for young people living in conflict zones. Many programs that have been prepared by taking the sensitivities of rural youths into account focus on income-generating activities for young people. For example, the Junior Farmer Field and Life School attempts (developed by the Food and Agriculture Organization of the United Nations, FAO, and the World Food Program,

WFP) intended to help ensure food security in the region by giving agricultural livelihood training to youths with low literacy skills. The curriculum created was based on gender equality and life-skills training integrated with practical skills in agriculture. The program, which created a strong joint ownership and extended to the families of the youth participants, was adopted by 18 countries in Africa, Asia, and the Middle East. In the same way, the life skills training that developed for young girls in Nepal is a program focused on developing decision-making skills and self-confidence, and it has increased the prestige of these young people in a country where women are traditionally accepted as having low status. The Mexican National Institute for Adult Education (INEA) conducted a program with young people of rural origin living in the backwoods area of a city in cooperation with non-governmental organizations, local authorities, and private companies. The Education Model for Life and Work is a program that allows youths who cannot benefit from formal education to obtain primary and secondary education, offering distance education and a variety of learning opportunities. The program also includes basic skills training together with literacy (Bernhardt, Yorozu, & Medel-Anonuevo, 2014).

Programs for young people who live in the city are mostly focused on substance abuse, sexual exploitation, and the HIV/AIDS pandemic. For example, Project Axe, an original program in Brazil, has allowed especially marginalized youths living on the streets the opportunity to gain music and dance skills specific to local culture as well as literacy skills. Young people were encouraged to become professional artists by learning these skills. Similarly, Passport to Success, applied in Jordan by the International Youth Foundation, was a program which created an attractive learning environment and focused on life skills and employability for at-risk youths. Educational materials were prepared in accordance with the psychological, social, and academic background of youths living in the city. The curriculum was flexibly designed in terms of culture and age-eligibility, and offered youths the chance to try their learned skills in a safe environment (Bernhardt et al., 2014; UNESCO International Bureau for Education [IBE], 2013).

Another aspect of using life skills training has been observed to be programs that provide access to education so as to reduce uncertainty during and after a conflict, creating hope for the future of youths living in conflict or post-conflict countries. For example, the Norwegian Refugee Council Youth Educa-



tion Pack, one such program, is based on the hypothesis that a predictable life plan, daily routines, and meaningful activities are the basis for eliminating the destroying effects during the transition from war to peace. In a 12-month process of basic training, students take farming, life skills, literacy, and numeracy courses, in addition to vocational skills training. This program has been applied to 13 conflict/post-war countries since 2003. According to assessments, youth centers and youth work groups strongly lay claim to the program after being locally implemented, providing support for youths to use their new skills. The common feature of all these programs is that they are flexible and formed according to youths' needs. The programs that have continued for many years cover vocational and life skills training through basic training such as literacy, numeracy, scientific information, local history, and culture. The design, implementation, and execution of these programs are in accordance with the needs of youths and a variety of partnerships and stakeholders (Bernhardt et al., 2014). Those related to substance and alcohol use prevention are very important among life skills-based programs that are carried out because the contents of these programs are widely used in both developed and developing countries.

### **Life Skills-Based Approaches and School Practices on the Prevention of Substance Use**

During the past forty years, the western world has used many prevention programs to prevent substance use in children and adolescents. Many programs used in the 1980s and 70s had focused on gaining skills related to resisting the media and peer pressure of youths in the framework of the *social effects approach*. After evaluating these programs, the insufficient results that were obtained led to the emergence of a new approach, *life skills training* (Luna-Adame, Carrasco-Giménez, & del Mar Rueda-García, 2013).

Life Skills programs are based on the social learning theory. The life skills approach is based on creating opportunities that will help one gain some basic skills that will enable youths to not be manipulated by external factors. In this way, youths are able to recognize the social pressure forced on them and the organized campaigns such as smoking ads that harm their health. While LST, on the one hand, provides youths the opportunity to make decisions that will lead

them to positive attitudes and values (e.g., making the decision not to smoke), on the other hand, it aims to gain control over their behavior. In addition, self-awareness, stress management, safe assertiveness, and negotiation are usually taught in LST. These theory-based programs emphasize practices of experiential learning and new skills acquisition throughout the program. Program activities continue with games, presentations, and other interactive formats by using the role-playing technique with small group discussions (PAHO, 2000).

Works related to cigarette, alcohol, or other substance use prevention may be in the form of policy-making initiatives, media campaigns, law enforcement, treatments, or prevention efforts. Some prevention approaches are designed for implementation in schools. These approaches typically target students in middle school using class-based interventions. The school environment is highly suitable for the implementation and testing of substance abuse prevention programs because there are opportunities to reach many students in the same grade that corresponds to the onset age of smoking (Botvin et al., 2003). Research on whether school-based programs are effective has given mixed results. However, applying an age limit to alcohol and cigarette consumption, identifying non-smoking places, and media campaigns against substance abuse have been submitted together in applications such as special programs implemented in schools to reduce substance abuse. The best practices that have been used to strengthen skills are school programs that aim to prevent or stop substance use and are carried out with a curriculum based on evidence and teaching social-cognitive life skills by enhancing information, influencing attitudes, and developing refusal skills. School health programs for substance use are recommended to take multiple factors such as refusal skills and the social norms that affect the use of substances into account (Zollinger et al., 2003). One of the programs used in many countries around the world, as is listed in this study's title, is Botvin's Life Skills Training program.

### **Botvin's Life Skills Training Program**

Botvin, a professor of psychiatry, released the LST program in 1979 for 7<sup>th</sup> through 9<sup>th</sup> graders. Botvin established the intention of a prevention strategy that would be effective on all the behaviors of substance use while issuing this

program (Botvin, Baker, Filazolla, & Botvin, 1990). Its conceptual framework was based on Jessor and Jessor's (1977) problem behavior model (PAHO, 2000). According to this model, the interaction of social and personal factors facilitates the use of various substances and cigarettes.

In a recent publication, Botvin and Griffin (2014) stated that LST is based on cognitive behavioral therapy. The LST program targets social and interpersonal factors; it provides active resistance to the social effects related to the use of cigarettes, alcohol, and other substances, reducing susceptibility to these effects and increasing resilience; it reduces the motivation to use psychoactive substances and confers knowledge, attitudes, and skills. LST classes are school-based prevention programs that are implemented by teachers and/or peer leaders, health educators, and prevention specialists. LST, which is implemented in middle schools, consists of 15 sessions in the first year, 10 sessions in the second year, and five sessions in the third year. LST, in line with its own rationale, is expected to be implemented with one or more sessions per week. The LST program consists of three basic components: (1) a personal competence component that teaches self-management skills, (2) a social competence component that teaches group social skills, and (3) health-related content in the form of substance-resistance skills that teach resistance skills and wellness (prohealth) attitudes (Botvin & Griffin, 2014). The *personal competency component* consists of units aimed at teaching problem-solving and decision making skills; skills for recognizing what appears in ads, analysis skills, and critical thinking skills that will enable resistance; skills for coping with stress and anxiety; emotional self-regulation skills for managing emotions like anger and frustration (such as reframing and positive self-expression), and skills for facilitating personal development such as self-evaluation, goal setting, self-monitoring, and self-rewarding. The *social competence component* consists of units that aim to teach communication skills necessary for starting communication easily and avoiding misunderstandings; skills for overcoming shyness, and for building and maintaining healthy relationships; skills for giving and receiving compliments; public speaking skills, and general safe-assertiveness skills. The *drug resistance component* includes being taught various information and skills in order to increase students' ability to resist social pressures related to tobacco, alcohol, and other substance usage. In the units containing these components, information is presented and the physiological effects of tobacco use are shown to correct

the normative expectations related to substance use and by focusing on advertisements that open the road to cigarette, alcohol, and other substance usage.

LST consists of teacher manuals and student guides for applying materials sequentially each year. The program, as some parts are taught using conventional didactic methods, also includes interactive teaching techniques in large formats, such as group discussions, class demonstrations, and cognitive behavioral skills training. Program training is carried out face-to-face or on a webcast by certified trainers, health professional educators, or educators that are involved in the program. The program was developed over time and went through some changes about thirty years ago; most importantly, it has been harmonized for the different levels of development. A number of researches have been made over the years on the effectiveness of this program.

### **Effectiveness of the Life Skills Training Program**

Evaluation studies on the effectiveness of the LST-based approach have produced conflicting results. Some authors reported finding it to have a preventative effect (Johnson, Shamblen, Ogilvie, Collins, & Saylor, 2009; Luna-Adame et al., 2013; Mandel, Bialous, & Glantz, 2006; Spoth, Trudeau, Shin, & Redmond, 2008; Smith et al., 2004) and others reported findings of its positive impact (Botvin et al., 2003; Fraguera, Martin, & Trinanés, 2003; Griffin, Botvin, Nichols, & Doyle, 2003; Seal, 2006). In the results of many studies performed on LST's positive impact, its effectiveness was seen for the prevention of tobacco use (Botvin & Eng, 1982; Botvin, Renick, & Baker, 1983; Botvin, Eng, & Williams, 1980, Zollinger et al., 2003), alcohol use (Botvin, Baker, Dusenbury, Tortu, & Botvin, 1990; Botvin, Schinke, Epstein, Diaz, & Botvin, 1995), marijuana use (Botvin, Baker, Dusenbury et al., 1990, 1995) and multiple drug use (Botvin, Baker, Dusenbury et al., 1990; Botvin et al., 1997). In some studies, different results for gender were found to be obtained (for example, Swisher, Smith, & Vicary, 2004). In addition to the positive effects of the program, its continuing preventative effects were reported over one year (Botvin, Baker, Filazzola et al., 1990), three years (Botvin, Baker, Dusenbury et al., 1990, 1995), and six years (Botvin et al., 2000). Studies on the LST-approach showed its ability to prevent the use of alcohol and other substances in secondary schools (Botvin, Baker, Dusenbury et

al., 1990, 1995; Botvin et al., 1980; Botvin et al., 2000; Botvin et al., 1983; Botvin, Baker, Dusenbury et al., 1990, 1995) and cigarette and alcohol use in primary schools (Botvin et al., 2003). As can be seen, some research has shown different conditions with different providers and that it might be effective in different age groups and different communities (Botvin & Griffin, 2014).

Together with these results, questions have emerged about the statistical analysis performed by Botvin et al.; and it has been suggested that the effects of this program are not significant or its effectiveness is very subtle (Gorman, 2005; Gorman, Conde, & Huber, 2007). Even some experts have suggested that the program might favor cigarette manufacturers and that the cigarette industry supports LTS, as this program is not directly aimed at reducing tobacco use (Mandel et al., 2006). According to Cuijpers (2002), the main problem in evaluating prevention programs is that different formats, goals, target substances, age groups, and theoretical models of intervention have been used. At the same time, the study design and assessment methods are substantially different in how they measure substance use; most of the results are not reliable as they are based on self-assessments. Therefore, there is a need for evidence-based quality measures. In the next section, after reviewing the results obtained from the effectiveness studies, the contents of these results, and their methods, this study will present the opinions related to the use of the LST program.

### **Suggestions for Turkey**

In this part of the study, life skills models on addiction prevention as applied in the world for nearly 40 years are discussed in light of the data obtained from the literature; this model will be given structure and implementation proposals for being able to develop a basic program in Turkey.

- The number of comprehensive studies on addiction prevention in Turkey is extremely limited. Aydoğdu-Sevgi, Ögel, Tarı-Cömert, and Yılmazçetin-Eke (2007) have developed the life skills-based Sunflowers Substance Abuse Prevention Education Program. An effectiveness study performed by Siyez and Palabıyık (2009) determined that the program provides a decrease in false beliefs on substances through raising the knowledge and skills of students on how to refuse these substances. However, the program was

determined to have no significant difference on the frequency of student substance use. Based on this research, perhaps the first thing that needs to be done while developing a life skills-based program for Turkey based on this research should be to determine the causes behind the failure of developed programs in making a difference on the frequency of substance use.

- As stated in the introduction of the study, there are a wide range of life skills. WHO (1997) stated that there may be additional culturally sensitive skills in addition to the basic skills which can be accepted universally. Especially in psychology, it seems important to take into consideration knowledge that is intended to harmonize with the needs and expectations of a country's life skills programs as well as consisting of cultural sensitivity as carefully emphasized in post-modern theories (Bernhardt et al., 2014; Jayaram & Engmann, 2014; UNESCO, 2012). Before establishing a comprehensive and effective life skills-based program for combating addiction in Turkey, it may be necessary to determine basically what the youth of Turkey might need as far as education and information campaigns by identifying their common problems and needs. Determining the problem and risk areas of youths can provide the addiction prevention life skills that will be targeted in programs and also identify opportunities in Turkish culture. This can be considered as able to increase the effectiveness of prevention studies that are enriched with resources such as the expectations, values, behaviors, and attitudes of the country. For the purpose of enhancing LST programs and bringing interventions that will be performed in line with contemporary approaches, (1) a postmodern psychology program should be added that develops interventions that enable people to use their own resources and arrange the meanings that are raised in their lives, and (2) by considering multi-culturalism, determine the common values and from these ingredients enrich the LST programs by creating interventions related to gaining values that are thought to be able to protect youths from addiction.
- In the program that will be developed, recent research on addiction is necessary and should benefit from the findings of the approaches. For example, Bruce K. Alexander's (n.d.) addiction experiment, which discussed a park mouse's inability to obtain a biological ingredient, offers remarkable findings that proved that mice, even if they become addicted, can get rid of their addiction by changing and organizing their environment. In this case,

the amount of what was offered to the individual is an effective point on behavior. Indeed, Cohen (2009), in noting that human nature feels a great need to establish bonds and relationships with others to be satisfied in life, emphasized that a person who is unable to establish meaningful bonds tends to bond with other things. Cohen's point of view has begun to redefine the debate on the question of addiction as "the problem of connecting with the wrong things." When approaching the problem of addiction from this point of view, what kind of living environment are youths presented with, what do they connect to, and what is healthier to connect with apart from addiction in accordance with LST are all subject to be discussed.

- In order for the program to maintain an effective and comprehensive manner with the intention of supporting sustainability, all kinds of stakeholders should be included, practitioners, politicians, civil society organizations, related institutions, youth representatives, and researchers; cooperation should be established (Bernhardt et al., 2014; UNESCO, 2012). Articles that have interpreted the results obtained from policy-setting meetings that were undertaken by UNESCO Institute for Lifelong Learning (UIL) and performed by the Canadian Ministry of Foreign Affairs, the Canadian Department of Foreign Affairs, Trade, and Development (DFATD, previously the Canadian International Development Agency, CIDA), and by politicians, practitioners, researchers, and youth representatives in Africa, the Middle East, and Asia, all refer to the necessity of using media, news, and regional networks, online and offline, on the topics of adding youths and the public to the decision-making process, reaching youths, recognizing their problems, and strengthening them. Across the spectrum of school-based prevention programs, it is more effective when they are presented within a wide range of other initiatives. Therefore, when initiating a comprehensive LST, topics such as media campaigns and legal limits absolutely must accompany studies to be performed.
- The search for meaning is one of the basic instincts of humanity. The search for meaning creates internal tension in people. This tension is an indispensable pre-requisite for mental health (Frankl, 2013). Finding meaning in life and determining life goals are important preventative factors in protecting individuals from psychopathology. Eryılmaz (2014), in a comparative research from the viewpoint of 108 youths with and without substance addic-

tion between the ages of 20 and 24, to determine finding life meaning and purpose in life, found that youths who were not addicted had more purpose in life and their lives found meaning from their environment. In a study performed by Ögel, Armağan, Eke, and Taner (2007), those who tried substances were seen to prefer social activities that were realized individually and performed for a specific purpose. These two findings reveal that in programs to be developed, activities need to take place related to creating a purpose in life and social activity preference.

- Studies on the prevention of substance use have taken place within a wide range, from personal care services to law enforcement. Together with this, research has shown that the risk period for the onset age of substance use is adolescence. The applicability of the school-based program in Turkey is considered to be high for being able to reach a large number of students in their adolescence. According to Balda and Turan (2012), every school should provide comprehensive and integrated life skills training for students to be able to make healthy choices and adopt healthy behaviors in their life. However, the removal of guidance hours prevents such a comprehensive study from being made at all school levels. Therefore, programs that will be developed should ensure guidance hours are again in the curriculum before the implementation stage.
- Another problem of increasing the effectiveness of the program that will be held in Turkey is the necessity of selecting and training the people who will implement the program and creating the criteria for this; Bernhardt et al. (2014) touched on the need to strengthen the teachers and administrators' skills through teaching a set of life-skills such as critical thinking and teamwork, and to organize information sharing across the region on the successful implementation of life skills layered into the curricula of schools, vocational training institutes, and non-formal education programs for the program to reach success. In Turkey, a notable issue for the success of the program is providing motivation on this subject to the individuals who will be practitioners.
- Some researchers have revealed that studies carried out on peer leadership are more effective than studies conducted on adult leadership (Arevian & Khasholian, 2014) when life skills training can also be expressed by the different practitioners (teachers, health care professionals, educators, preventi-



on experts, and leaders from among the peers) who will apply it (Botvin & Griffin, 2014). Therefore, the contribution of different practitioners to the effectiveness of the program should be evaluated in the pilot applications that will be performed in Turkey.

- The program that is to be formed may be thought of as being prepared in accordance with paying attention to the needs and interests of today's youths (i.e., for using information technology).
- The effectiveness of the program that will be developed should be tested for various groups, such as children who have dropped out of school, disabled persons, and different subcultures.

As a result, LST can be prepared in various perspectives depending on the requirements of countries. In the fight against addiction, LST is an education that has had its effectiveness and current applications tested all over the world. The effectiveness of the education is diversified in connection to generated content, the characteristics of the groups that are treated, the identities and competencies of the practitioners, the duration of the program, and the objectives. In Turkey, the most appropriate age group for a prevention program that targets protection from addiction seems to be adolescence or the age just before it. The literature shows this age group to be at risk (UNICEF, 2012; UNODC, 2005; WHO, 2003), and the youth that were spoken to in Turkey (TUBİM, 2006-2009) demonstrated the same research results. In light of all this information, one could argue that the program design as a basic objective created for Turkey should be to create inter-agency cooperation in a wider context and very participatory structure, occur in middle school as the easiest step for reaching youths who are at risk of substance use, structuring permanent schools, and being sensitive to the wealth of different cultures. The program that will be created can lead to the preparation of a postmodern framework that includes social learning-based, cognitive behavioral interventions in accordance with the world literature yet at the same time facilitate culturally sensitive work; it can lead to being more functional and to creating a map of integrated content in this context. Also for Turkey, areas of literature related to addiction that need to be completed, as well as the various and numerous researches that need to be encouraged are other forward results.

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