

Preventivní programy z genderového hlediska: přehledová studie



ORTE, C., FERNÁNDEZ-DE-ÁLAVA, M., AMER, J.

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SOUHRN: *Nedostatek pozornosti věnovaný problematice genderu vede v prevenci často k opomíjení rozdílů mezi pohlavími. V této práci se zamýšlíme nad dosavadními výzkumnými poznatky o efektivitě preventivních programů ve vztahu k dívkám, které mohou odborníkům z praxe a výzkumným pracovníkům pomoci najít odpovědi na některé z otázek týkajících se rozdílných reakcí dívek a chlapců na preventivní intervence. Zkoumány byly školní a komunitní preventivní programy evidované v národním registru vědecky podložených programů a postupů vedeném americkým úřadem pro služby v oblasti léčby závislosti a duševních poruch (SAMHSA), jakož i programy evidované Evropským monitorovacím centrem pro drogy a drogovou závislost (UNDOC, 2016). Výsledky byly rozříděny podle pohlaví. Studie analyzuje pět preventivních programů, jejichž účinnost byla prokazatelně vyšší u dívek: Self-Management and Resistance Training (SMART), (2) ALERT Plus, (3) ATHENA, (4) elektronický program pro matky a dcery a (5) program Strengthening Families. Z výsledků našeho přehledu vyplývá, že (i) doposud byla hodnocena pouze menšina preventivních programů a jen v několika z těchto případů byla provedena analýza, jež by přihlížela k rozdílům mezi chlapci a dívkami, (ii) pouze dva z těchto programů zohledňují genderová specifika, (iii) pokud dívky sportují, neznamená to automaticky, že nebudou chtít být hubené nebo že budou imunní proti užívání návykových látek, (iv) v některých případech zjištěná vyšší efektivita určitého programu ve vztahu k dívkám platí u dívek ve vysoce rizikových situacích a (v) aktivní zapojení matky přispívá k redukci užívání u dětí i u matek. Výstupy studie jsou diskutovány z hlediska relevance genderově orientované analýzy dat týkajících se užívání návykových látek a jeho prevence. Nastíněny jsou nové oblasti výzkumu.*

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Korespondenční adresa: Miren Fernández-de-Álava / miren.fernandez@uib.es / University of the Balearic Islands, Departamento de Pedagogía y Didácticas Específicas, Despacho B-202 Cra. de Valldemossa, km 7.5. 07122, Palma, Islas Baleares

A Review of Prevention Programmes from a Gender Perspective



ORTE, C., FERNÁNDEZ-DE-ÁLAVA, M., AMER, J.

University of the Balearic Islands

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SUMMARY: Failure to address gender has often led to its invisibility in prevention. This paper explores evidence on the effectiveness of prevention programmes for girls that can offer practitioners and researchers an insight into why girls and boys respond differently to prevention, based on a review of school and community-based prevention programmes with results broken down by gender, listed in the US Substance Abuse and Mental Health Services Administration's National Registry of Evidence-based Programs and Practices and in the European Monitoring Centre for Drugs and Drug Addiction (UNDOC, 2016). The paper analyses five prevention programmes that have proven to be more effective among girls: Self-Management and Resistance Training (SMART); (2) ALERT Plus; (3) ATHENA; (4) a Computer-Delivered Programme (mothers and daughters), and (5) the Strengthening Families Program. The results of our review show that: (i) only a minority of prevention programmes have been assessed and in few of these cases has an analysis been conducted that takes gender differences into account; (ii) only two of these programmes are gender-specific; (iii) female athletes are not exempt from wishing to achieve a thin body type or from drug use; (iv) in some cases, a programme's detected higher female effectiveness is specific to girls in high-risk situations, and (v) involving mothers helps to reduce consumption among both children and mothers. The findings are discussed in terms of the relevance of a gender-related analysis of data on substance abuse and its prevention. New fields of research are suggested.

KEY WORDS: PREVENTION PROGRAMMES– GENDER PERSPECTIVE – DRUG USE – EFFECTIVENESS

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Address for correspondence: Miren Fernández-de-Álava / miren.fernandez@uib.es / University of the Balearic Islands, Departamento de Pedagogía y Didácticas Específicas, Despacho B-202 Cra. de Valldemossa, km 7.5. 07122, Palma, Islas Baleares

● 1 INTRODUCTION

The problem of tobacco, alcohol, and drug use must be addressed from a gender-related perspective because of differences in socialisation, development, possible motivations, the onset and progression of substance use, addiction and abandonment of the habit, use patterns, and the possible consequences (Pozo, Orte, & Vives, 2016; Lynch, Roth, & Carroll, 2002; Romo, 2012). Although progress has been made in detecting differences in use, there is still an urgent need for research into women and drugs and the publication of the results (Wetherington, 2007) since, in this way, a more successful approach can be taken to intervention strategies and programmes (Blake, Amaro, Schwartz, & Flinchbaugh, 2001) targeted at either men or women (Lynch, Roth, & Carroll, 2002). Indeed, as Wetherington (2007) suggests, one of the advantages of separate gender-based analyses of data is the broader insight that can be gained into substance abuse among women and its prevention, while also making headway on the theory underlying male substance use and its prevention.

Given the above, we posed two questions: (1) have prevention programmes examined gender differences? and (2) if so, are these programmes effective for girls? The relevance of a gender perspective must be stressed. 'Gender is a concept, a theoretical and methodological perspective. Nevertheless, it is not aimed at studying women and/or the roles of women' (Romo, in press). The inclusion of gender in research on drug use 'questions epidemiological models based on sex differences and it addresses substance use and abuse among women and the context of substance use [...], allowing [practitioners and researchers] to understand the differences' (Romo, 2005, p. 71).

Hence this paper's contribution is twofold: on the one hand, it reviews worldwide prevention programmes and, on the other, it explores evidence on the effectiveness of these programmes among girls, thus helping practitioners and

researchers to understand why girls and boys respond differently to prevention.

● 2 ADOLESCENCE AND ALCOHOL AND DRUG USE

Alcohol and drug consumption tends to begin in adolescence as a result of the convergence of various factors (De la Villa, Ovejero-Bernal, Castro, Rodríguez-Díaz, & Sirvent-Ruiz, 2011; Espada, Méndez, Griffin, & Botvin, 2003; Kloos, Weller, Chan, & Weller, 2009; Kuntsche & Cooper, 2010): a lack of information or misinformation, easy access to these substances, social acceptance of alcohol, advertising images of alcohol and drugs, peer pressure, a search for new sensations, a form of fun, favourable attitudes, an inappropriate educational style, family consumption, or a lack of family communication.

Drug consumption patterns tend to differ across adolescence, particularly when gender is taken into account. As shown in *Table 1* (Springer, Sambrano, Sale, Kasim, & Hermann, 2002), adolescent boys start to take drugs for reasons relating to external acceptance and self-affirmation, whilst, in the case of adolescent girls, it tends to be associated with emotional problems.

Girls are better at reporting offers of substances (Kulis, Booth, & Becerra, 2016) and they consume them more often than boys during the early adolescence stage (Chen & Jacobson, 2012). Nonetheless, this use varies from mid-adolescence to early adulthood, although the highest consumption levels occur during the adolescent years.

Espada, Méndez, Griffin, and Botvin (2003) highlight different problems associated with alcohol abuse in adolescence, such as severe alcohol poisoning or drunkenness, problems in school, unplanned intercourse, traffic accidents, legal problems, emotional problems, and the consumption of other substances. However, Khan, Cleland, Scheidell, and Berge (2014) are fully convinced that alcohol-related problems in adolescence differ according to the

Table 1 / Tabulka 1

Gender Differences in Substance Abuse. Source: Springer, Sambrano, Sale, Kasim, & Hermann (2002)
Genderové rozdíly v užívání návykových látek. Zdroj: Springer, Sambrano, Sale, Kasim a Hermann (2002)

Reasons for the onset of substance use	Adolescent Girls	Adolescent Boys
To bond socially with substance-using boys		X
To enhance one's sense of self		X
Sensation seeking and boredom relief		X
Acting out socially threatening behaviour		X
Emotional problems	X	
Relationship difficulties	X	
Stress	X	
Depression	X	
Anxiety about weight and eating disorders	X	

person's gender and they claim that problems sparked off by alcohol abuse during adolescence are associated with sexual relations and relationship issues.

Giletta et al. (2012) state that male and female friendships differ in their structure and content, leading directly to differences in consumption. According to Mrug, Borch, & Cillessen (2011), girls with more male friends are more likely to start smoking. This is why Jacobs, Goodson, Barry, and McLeroy (2016) recommend a gender-based analysis of how groups of friends impact on substance abuse.

The *CSAP National Cross-Site Evaluation of High-Risk Youth Programs* (Springer, Sambrano, Sale, Kasim, & Hermann, 2002) assessed gender differences or similarities in alcohol, tobacco, and illegal drug use among adolescent boys and girls at risk of consuming them. Taking a quasi-experimental approach, they compared 6,000 young people participating in 48 programmes with 4,500 similar young people from the same communities who did not take part in these programmes, concluding that boys and girls respond to prevention differently. More specifically, the boys displayed a lower level of short-term substance abuse, whilst the benefits among the girls were noticeable later and were maintained over time.

For Springer, Sambrano, Sale, Kasim, and Hermann (2002), programmes that focus on social skills are particularly important for girls. Nevertheless, programmes targeted at women are no more effective than mixed-gender ones since they tend to place particular emphasis on emotional content matter, which has not been proven to lead to better results in the control of substance abuse. These authors highlighted the role of the family in drug use, finding that girls reported stricter family supervision than boys, thus limiting the opportunities for substance abuse. Boys had more opportunities, depending on the social setting. However, family and school ties are important protective factors for both boys and girls.

● 3 PREVENTION PROGRAMMES FROM A GENDER PERSPECTIVE

Prevention programmes seek to prevent or delay the onset of substance abuse or to reduce consumption. They are proven to be effective and attempt to modify possible risk factors (Blake, Amaro, Schwartz, & Flinchbaugh, 2001). However, failure to address gender has often led to its invisibility in prevention (Romo, 2012), with the design and implementation of women's programmes being based solely on empirical evidence for men (Belknap, 2006; Springer, Sambrano, Sale, Kasim, & Hermann, 2002), without taking into account the biological, psychological, social, and cultural differences between men and women (Romo, 2012), possible different reasons for substance abuse, and different needs and associated problems (Blake, Amaro, Schwartz, & Flinchbaugh, 2001).

This review demonstrates that few programmes have taken the above issues into consideration in relation to adolescent girls and women (Blake, Amaro, Schwartz, & Flinchbaugh, 2001; Springer, Sambrano, Sale, Kasim, & Hermann, 2002; Zahn, Hawkins, Chiancone, & Whitworth, 2008) and few evidence-based programmes report a reduction in alcohol and drug use, broken down by gender (Blake, Amaro, Schwartz, & Flinchbaugh, 2001). According to these last authors, only 11 out of 28 prevention programmes report differences by gender, with findings that point to an impact on the onset and prevalence of tobacco smoking among girls. In contrast, in the programmes that reported on the gender effects, when it came to the female participants, six programmes had a higher or more significant impact on the onset and prevalence of tobacco smoking, four on substances other than tobacco, and three on the onset and consumption of alcohol. Nonetheless, these programmes were run in the 1970s and '80s and female consumption has gone up, highlighting the need to contemplate more recent programmes with sufficient scientific evidence (Kumpfer, Smith, & Summerhays, 2008).

According to Blake, Amaro, Schwartz, and Flinchbaugh (2001), the programmes that are most effective: focus on different substances (tobacco, alcohol, and drugs); work on personal, social, and context-specific factors; cover multiple skills and abilities; are interactive; work on social norms and influences, and involve parents, carers, and the family. The most effective programmes for women are those that work on coping skills for dealing with peer and partner pressure, on reducing negative social influences, on expanding their network of pro-social friends, and on rates of use (Kumpfer, Smith, & Summerhays, 2008).

Furthermore, in keeping with the findings of Van Ryzin, Roseth, Fosco, Lee, and Chen (2016), who conducted a meta-analysis of family programmes as a family-based prevention strategy for adolescents, as well as components relating to family supervision and behavioural control, other adolescent-specific components should be incorporated or extended to boost the programmes' success.

● 3 / 1 Methodology

Under the premise that 'little is known about the effectiveness of [drug prevention] strategies by gender or about how programmes can be tailored to be more gender-sensitive or gender-specific' (UNDOC, 2016, p. 16), the United Nations Office on Drugs and Crime (ibid.) carried out a review aimed at examining gender differences in school and community-based prevention programmes, with results broken down by gender.

Drug use prevention can be effective, provided that interventions are assessed using evidence-based guidelines for defining their efficacy/effectiveness (Gottfredson et al., 2015). That is why our two chosen online databases were the

National Registry of Evidence-based Programs and Practices (NREPP), held by the US Substance Abuse and Mental Health Services Administration (SAMHSA), and the European Monitoring Centre for Drugs and Drug Addiction.

The UNDOC (2016) found that six out of 21 school and community-based prevention programmes were 'better for girls'. They were (1) Self-Management and Resistance Training (SMART) (Graham, Johnson, Hansen, Flay, & Gee, 1990), (2) ALERT Plus (Longshore, Ellickson, McCaffrey, & St. Clair, 2007), (3) ATHENA (Ranby et al., 2009), (4) Multidimensional Treatment Foster Care Middle School Success, (5) Computer-Delivered Programme (mothers and daughters) (Schinke, Fang, & Cole, 2009), and (6) the Strengthening Families Program. Given the specific aim of this paper, we do not take into account the Multidimensional Treatment Foster Care Middle School Success programme and instead we focus on the other five programmes and their respective outcomes.

● 3 / 2 Results

The outcomes presented here refer solely and exclusively to those prevention programmes that have proven to be more effective among girls (Table 2).

3 / 2 / 1 Self-Management and Resistance Training (SMART)

The SMART project (Self-Management and Resistance Training) is a multiple-year (sixth-, seventh-, and

eighth-grade) social skills and affect management programme aimed at reducing the onset of cigarette, alcohol, and marijuana use. The social skills programme is divided into 12 sessions in which the students learn to cope with the social pressure to consume drugs, resistance techniques, and role-plays of these techniques (Graham et al., 1990). The affect management programme is a 12-session programme dealing with personal decision-making skills, value clarification, and stress management techniques. In some cases (i.e. the 1983 and 1984 cohorts), the affect management programmes also worked on resistance skills.

A total of 5,070 seventh-graders from 16 junior high schools participated in the SMART project. All the schools were randomly selected from a total of 63 junior schools. Graham et al. (1990) published the outcomes of lifetime and recent cigarette, alcohol, and marijuana consumption by three cohorts of students from the 1982–1983, 1983–1984, and 1984–1985 school years. The cigarette index was based on the number of cigarettes smoked during their lifetimes and during the past 30 days, and on their smoking status. The alcohol consumption index was based on the number of alcoholic drinks consumed during their lifetimes and during the past 30 days and past seven days. Finally, the marijuana consumption index was based on the number of times marijuana had been consumed during their lifetimes, the past 30 days, and the past seven days (ibid.).

There were significant pre-test differences when the data was broken down by sex. More specifically, the average

Table 2 / Tabulka 2

Evidence-based prevention programmes that show better outcomes for girls. Sources: Ballester, Amer, Gomila, Pascual, & Oliver (in press); Graham et al. (1990); Longshore, Ellickson, McCaffrey, & St. Clair (2007); Ranby et al. (2009); Schinke, Fang, & Cole (2009); and Orte, Ballester, Amer, & Vives (in press) *Vědecky podložené preventivní programy vykazující lepší výsledky u dívek. Zdroj: Ballester, Amer, Gomila, Pascual, Oliver (v tisku); Graham et al. (1990); Longshore, Ellickson, McCaffrey a St. Clair (2007); Ranby et al. (2009); Schinke, Fang and Cole (2009); Orte, Ballester, Amer, Vives (v tisku)*

Name of programme	Results
Self-Management and Resistance Training (SMART)	The females reported substantially less drug use than the males at the pre-test stage, but only slightly less use than the males at the post-test stage. The intervention group displayed significantly lower mean values than the control group for cigarette, alcohol, and marijuana consumption.
ALERT Plus	Several cognitive results that condition social influences on the consumption of alcohol or marijuana among girls in high-risk situations were modified.
ATHENA	At the post-test stage, the females displayed a lower propensity toward steroid and creatine consumption or toward unhealthy weight loss behaviours. These effects were most strongly conditioned by social norms and self-efficacy in healthy eating. This low post-test proclivity was maintained nine months later, predicting subsequent behaviour.
Computer-Delivered Programme	At the two-year follow-up, in comparison with the girls from the control group, the ones in the intervention group reported lower relevant risk factors and higher protective factors, in addition to lower consumption of alcohol, marijuana, illicit prescription drugs, and inhalants during the last 30 days. The mothers in the intervention group showed more positive two-year outcomes than the ones in the control group for variables associated with a reduced risk of substance use by their daughters, and the same mothers reported lower rates of weekly alcohol consumption.
Strengthening Families Programme in Spain	There was a significant decrease in their predisposition to consume substances at the end of the programme, with long-term maintenance of the effects (SFP 6–11). When the pre-test and post-test stages were compared, there were significant differences in the propensity to consume substances or to hold false impressions (SFP 12–16).

drug consumption at the pre-test stage was lower for the girls than it was for the boys. In the belief that the programme run during the 1982–1983, 1983–1984, and 1984–1985 school years had had positive effects on the girls but not on the boys, the authors (Graham et al., 1990) concluded that: (i) the female seventh-graders might have been more receptive to prevention programmes; (ii) the project's health educators, who were female, could have been better role models for the girls, and (iii) the skills learned through the syllabus could have been more relevant to processes that affect the onset of drug consumption by girls.

3 / 2 / 2 ALERT Plus

The ALERT project's design is based on the social influence prevention model, aimed at encouraging secondary school students (in years/grades seven and eight) not to consume substances and to help them build up more resistant behaviour (Longshore, Ellickson, McCaffrey, & St. Clair, 2007). The sessions are based on a question-and-answer methodology, working with small groups. The ALERT Plus project has the same general theoretical basis and aims as the ALERT project but it focuses on secondary school students in years/grades 9–12. Another difference is the fact that behavioural changes over these years are taken into account. This has an impact on the likelihood of consumption and reasons for doing so. The syllabus includes attitudes aimed at boosting their resistance to substance use, skills at dealing with and avoiding risk situations, understanding the consequences of substance abuse, developing healthy ways of dealing with emotional stress, and identifying marketing techniques. Given the project's awareness of parents' role in reducing consumption, the ALERT Plus project includes them in the prevention process (*ibid.*).

Longshore, Ellickson, McCaffrey, and St. Clair (2007) compared the adolescents taking part in the ALERT project with those from a set of control schools in order to measure the project's effects one year after its conclusion. In turn, they compared the adolescents from the control group with those at the schools where the ALERT Plus project had been run in order to assess the combined impact of the ALERT project with added reinforcement classes in year/grade nine. The analysis was based on 1,383 pupils from 45 schools: 457 pupils from the 16 schools taking part in the ALERT project, 370 pupils from the 14 schools taking part in the ALERT Plus project, and 556 pupils from the 15 schools that formed the control group.

The results support the hypothesis of a gender-based difference in substance use. More specifically, the ALERT Plus project modified several cognitive results that condition the importance of social influences on alcohol and marijuana consumption by girls in high-risk situations, but not by boys in similar situations. On the one hand, there was a heightening of the girls' perceptions that their friends

would respect their decision not to consume alcohol and/or marijuana and that they could deal with peer pressure. On the other, their perception that the consumption decision must be condoned by their friends waned. The ALERT Plus programme's higher success rate among girls was indicated by each perception modified during the programme that had a knock-on effect on the consumption of alcohol and marijuana by girls in high-risk situations, partly as a result of its greater effectiveness in modifying their beliefs regarding influences and their ability to deal with them.

In the girls' case, the messenger's persuasive capacity was also found to be more efficient, pointing to the fact that girls are more willing to change when a female teacher delivers the message. Thus the impact of the syllabus will partly depend on the sex of the teacher, at least in the case of girls in high-risk situations. In conclusion, this approach could improve the project's efficiency in dealing with vulnerable adolescents, particularly girls who start to smoke tobacco or marijuana at very young ages.

3 / 2 / 3 ATHENA (Athletes Targeting Healthy Exercise and Nutrition Alternatives)

In keeping with the concept of primary prevention, the ATHENA programme aims to reduce the likelihood of risky forms of weight loss and substance abuse as a means of improving sports performance. Using a pre-designed sports syllabus, it works on modifiable risk factors and protective factors associated with eating disorders and substance-related body shaping. On the basis of the premise that these modifications will lead to a lower likelihood of high-risk behaviours, it works on negative emotional states, eating practices for athletes, the risk of steroid use, unhealthy types of weight loss, not capitulating to media messages, the pressure from coaches to lose weight, and peer advice on the use of steroids and eating disorders (Ranby et al., 2009).

The programme is based on eight weekly sessions, each lasting for 45 minutes, led by a coach and integrated into normal team activities. The athletes are split into six-member teams with a designated leader. The coach and leader work from a written script. Most activities are peer-led and encourage group participation. The sessions introduce the athletes to: proper eating habits for sports players (sessions 1 and 2); how better eating habits can help to ensure the achievement of weekly goals (session 4); the effects of substances on the body (session 2); eating disorders (session 3), and negative expectations (sessions 5 and 6). In turn, activities are organized to analyse advertising messages: on supplements and diet pills so as to rectify beliefs (session 4); on the creation of adverts that promote healthy activities so as to establish normative beliefs on substance use and to reinforce negative outcome expectancies (sessions 5 and 6); on recognising the link between their activities and feelings through daily diaries and strategies for

controlling emotional states (session 3), and how to avoid unhealthy weight loss behaviour through role-plays. Intentions are targeted during the last session (session 8) (*ibid.*).

Given that the participants have yet to develop risk behaviours, the main aim is a preventive one, aimed at reducing any such likelihood. With this as their premise, Ranby et al. (2009) explored the inclination to lose weight unhealthily and to take substances in order to improve sporting times among a randomised trial of 1,688 female athletes (aged between 15 and 18) from 18 schools in the northeast of the United States. During the three years of the study, 928 athletes took part in the first year, 485 in the second year, and 255 in the third. There were three measurement points: (i) at the pre-test stage, (ii) at the immediate post-test stage (gathered within two weeks of the end of the 3–4-month sporting season), and (iii) at the long-term follow-up stage (collected nine months after the post-test).

During the pre-test stage and final three months, few athletes took slimming pills, diuretics, laxatives, anabolic steroids or creatine, or vomited, and 14% failed to eat for a whole day or more in order to lose weight. The number of participants dropped from 1,688 to 1,261 (a loss of 24%) between the pre-test, intermediate, and post-test stages. The drop-out rate (25% of the experimental group and 24% of the control group) was mostly due to the structure of the sports programme and was caused by injury/illness or withdrawal. Only athletes who were active after participating in the ATHENA programme were included in the longitudinal follow-up (nine months). Data was collected from 817 (81%) of the 1,006 participants in the first two cohorts. The final cohort comprised 255 participants.

The post-test results showed a drop in the inclination to use steroids or creatine and in the propensity to lose weight unhealthily. These effects were strongly influenced by social norms and self-efficacy in healthy eating. Nonetheless, no effects on weight loss or on taking substances to improve sporting times were found during the nine-month follow-up. In previous studies (Elliot et al., 2004, 2006) using a sample of 928 female athletes, the effects of the ATHENA programme were found to influence the use of diuretic, amphetamine, steroid, and anabolic pills and sports supplements. At that time, the ATHENA programme resulted in improved nutritional skills, knowledge of the harmful effects of steroid use and eating disorders, the ability to control emotional states and to avoid unhealthy weight loss, and a lower belief in adverts. In 2008 (Elliot et al., 2008), lower drug and alcohol use was reported but there was no improvement in eating disorders between the first and third years after graduation.

In short, the results support the focus of the ATHENA programme as a primary tool in prevention, with it having a higher impact on reducing the likelihood of unhealthy behaviour than on actually eradicating it. The most solid mea-

sure of the impact of the ATHENA programme is social norms. More specifically, female eating disorders are strongly influenced by coaches' beliefs and by the use of diuretic pills and a lower calorie intake, in turn influenced by advertisements. The results point to a change in the adolescents' false impressions of normative conduct, hence reducing the risk of unhealthy behaviour in the form of attempts to shape the body.

The second most solid measure of the impact of the ATHENA programme is dietary self-efficacy in the athletes' goal to become better at their sport. They learnt to include the right nutrients in their diets so as to improve their performance and they became aware of the harmful effects of steroid and diuretic use and fasting. The third most solid measure is an understanding of the consequences of harmful behaviours. In addition, after the programme, the likelihood of risk behaviours was reduced by learning to control states of mind.

3 / 2 / 4 Computer-Delivered Programme (mothers and daughters)

Schinke, Fang, and Cole (2009) presented a computer-delivered programme aimed at preventing substance abuse by adolescent girls. For these authors, computer-run programmes allow users to access and browse them in a way that matches their individual speeds; they find their interactive contents stimulating, and this mode is suitable for demonstrations and tutored practice. The participants are able to interact with contents designed to suit their specific level of skills.

The mothers and daughters interacted at home and at other times during the nine scheduled sessions, which each lasted for 45 minutes (once a week). The annual reinforcement sessions also lasted for 45 minutes, and were given in the form of voiceover broadcasts, tests with cartoons, and interactive exercises done together. In this way, they learnt to listen to one another, spend time together, put themselves in the other's place, negotiate in problem solving, do personal favours, and praise one another.

The programme was trialled with 916 randomly selected mothers and daughters from New York City (all districts), south Connecticut, and east New Jersey between 2006 and 2009. The average age of the daughters was 12.8 to 14.8. Thanks to the programme, the mothers learnt to communicate better with their daughters, supervise their children's activities, boost their daughters' self-image and self-esteem, establish rules regarding the consequences of substance abuse, create family habits, and cease to have unrealistic expectations about their daughters. In turn, the adolescent girls learnt how to control stress, conflicts, and humour, face up to peer pressure, boost their self-image and self-esteem, and evaluate the prevalence of alcohol, tobacco, and drug use among their peers.

Two years after the prevention programme's implementation, the outcomes for the participants were better than those of the control group. The adolescents from the intervention group reported lower risk factors and higher protective factors and, during the last 30 days, they had consumed alcohol, marijuana, illegal drugs, and inhalants to a lesser extent. The mothers who took part in the group alongside their daughters displayed better results than the mothers from the control group in variables relating to a lower risk of substance abuse by their daughters and lower weekly alcohol consumption rates. This last result highlights how the programme managed to make the mothers aware of their alcohol consumption and how, inadvertently, it might have set a behaviour pattern for their daughters.

It was also noted that from the start of the programme through to the two-year follow-up, the adolescents and mothers from the control group reported more negative scores in communication and family ties, parental control, knowledge of and the establishment of family rules on consumption, and participation in family practices. It is important to point out that all these factors can protect adolescents from substance abuse. In contrast, the mothers and daughters who took part in the programme improved their communication skills and closeness, and family rules on consumption were tightened. Furthermore, the mothers gained a better knowledge of their daughters' activities outside the home and their friendships.

On the basis of the results obtained, Schinke, Fang, and Cole (2009) conclude that the programme was effective in changing the risk and protective factors for the adolescents and the consumption patterns of the mothers and daughters.

3 / 2 / 5 The Strengthening Families Programme in Spain

The *Strengthening Families Programme* (SFP) is a selective, multicomponent prevention programme (Kumpfer, DeMarsh, & Child, 1989). Based on scientific evidence, its design focuses on reducing the influence of family risk factors on the children of drug users and on strengthening protective factors so as to boost their resistance to substance abuse and other possible antisocial behaviour problems.

The SFP was specially adapted and validated for Spain under the name 'Programa de Competencia Familiar' (PCF). It is made up of 14 sessions with reinforcement at six months and a follow-up at 24 months. The main objectives are to: (i) improve family relations; (ii) boost parenting skills; (iii) improve the children's competences (knowledge, attitudes, and behaviour); (iv) increase the children's social skills, and (v) reduce or prevent alcohol and other substance abuse. The specific aims for the parents are to boost positive parenting, parental involvement, parental skills, co-parenting, parental supervision, and parental efficacy.

The specific aims for the children are to improve their social skills, interpersonal relationships, adaptive school skills, participation in family dynamics, and preventive attitudes regarding drug use. The programme also aims to reduce drug abuse and aggression among the children.

An analysis was recently made of the evolution of the attitudes of the adolescents (12-14 years old) taking part in the PCF to drug use (Ballester, Amer, Gomila, Pascual, & Oliver, in press; Orte, Ballester, Amer, & Vives, in press) through a Questionnaire of Attitudes Toward Drug Use (Maciá, 1986) administered after 24 months, which explored any gender differences. The propensity toward consumption and tendency to hold false impressions or correct protective beliefs were assessed in a sample of 99 adolescents (78 from the experimental group and 21 from the control group). The girls showed a significant drop in their propensity toward consumption at the time of the post-test, which then rose again, although the difference at this second point in time was not significant. Thus a certain continuance of the programme's effects can be observed in terms of a slowdown and slight drop in their inclination to consume drugs. The girls were seen to hold higher false impressions during the Post 1 and Post 2 checks, with a more consistent recovery of these beliefs or increase in their prevalence in this instance. The gender differences were not significant at the beginning but they did become so at the time of the Post 1 and Post 2 checks.

Significant changes were observed in correct protective beliefs from the beginning of the programme to Post-test 1 and from Post-test 1 to Post-test 2. In the long term, the adolescents regained some false impressions, although never to the initial extent. Their protective beliefs started out at a high level, improved at the first post-test stage, and dropped afterwards (although they still remained higher than at the first data collection point).

The attitudes of the adolescents (12-16-year-olds) to drug and alcohol consumption were analysed. The propensity to consume these substances and to hold false impressions or correct protective beliefs was again measured in 92 families (23 from the control group and 69 from the experimental group). Significant differences between the pre- and post-test stages were found in their stated inclination to consume these substances and stated false impressions, together with a non-significant difference in their stated protective beliefs, although the initial values were already high in this last case. As for gender, very similar values were observed in their stated propensity to consume these substances, tendency to hold false impressions, and tendency to hold correct ones, although these last values were generally lower among the adolescents (Ballester, Amer, Gomila, Pascual, & Oliver, in press).

● 4 DISCUSSION AND CONCLUSIONS

This paper explores how prevention programmes examine gender differences, if indeed they do, and which prevention programmes are more effective for girls. It is important to point out that one of the study's limitations is the fact that only a minority of prevention programmes have been assessed and, out of this minority, few took gender differences into account in analyses of their effectiveness (Blake, Amaro, Schwartz, & Flinchbaugh, 2001; UNDOC, 2016). The review by UNDOC (2016) revealed that 21 school and community-based prevention programmes published their outcomes by gender, with six of these 21 reporting more positive results for girls. Following a more in-depth examination of these programmes, we realised that only two of them were gender-specific: ATHENA, directed at female high school athletes, and the Computer-Delivered Programme, directed at mothers and daughters.

Different authors have highlighted the perils of the sociocultural thin-body stereotype (Cafri, Yamamiya, Brannick, & Thompson, 2005) and the close relationship between achieving a thin body and drug use, such as smoking, amphetamines, and diet pills (Kumpfer, Smith, & Summerhays, 2008). Female athletes are not exempt from this risk, but the ATHENA programme reported positive outcomes through a lower inclination to improve sports performance by taking steroids or creatine or by attempting to lose weight unhealthily. Elliot et al. (2008) also reported effective significant outcomes (i.e. less use of amphetamines, anabolic steroids, and sport supplements).

With the ALERT programme, a higher effectiveness was detected in the case of girls in high-risk situations, and the impact of the syllabus partly depended on the gender of the teachers. Thus the question arises of whether ALERT can achieve positive outcomes with girls who are not in high-risk situations or this is only possible for some sub-groups.

We know (Kumpfer, 1994) that by involving mothers in programmes, a reduction can be achieved in children's behavioural and emotional problems and in their consumption. The Computer-Delivered Programme was a wonderful example of effective changes in adolescent girls' risk and protective factors and also in alcohol consumption by mothers. Because of the programme's design, both mothers and daughters benefit from the programme, confirming that family-based interventions are a successful strategy in preventing substance use and abuse (ibid.). As well as obtaining families' written consent for their daughters to take part in the ATHENA programme, it would be interesting to involve mothers and fathers in further editions.

Blake, Amaro, Schwartz, and Flinchbaugh (2001) and Kumpfer, Smith, and Summerhays (2008) pointed out that the most effective programmes include peer-pressure coping skills and skills aimed at reducing possible negative so-

cial influences. This is so fundamental that, with ALERT for instance, the perceptions that friends would respect the decision not to consume alcohol and/or marijuana and that it was possible to deal with peer pressure were boosted, while the perception that friends must condone the consumption decision waned. In the ATHENA programme, the strongest influence on the outcomes was the social norm construct (through norms for the coach and magazine advertisements). Hence by modifying female high school athletes' distorted views of normative behaviours, the propensity toward unhealthy behaviours can be reduced (Ranby et al., 2009).

Since the development and testing of the SFP in the mid-1980s, it has been adapted and implemented in different countries, although not all the implementations have examined gender differences. A 2013 gender analysis by Magalhães of an SFP normative database of over 4,000 families from SFP groups worldwide found that the programme was equally effective for both boys and girls. Research conducted in Spain found some positive effects among girls (i.e. a significant drop in their propensity to consume substances) at the end of the programme and after 24 months.

Without overlooking the fact that there is still much gender-specific research to be done (Wetherington, 2007), this paper provides a framework for a gender-related approach to prevention programmes and for exploring this issue further. Nevertheless, given that girls do not necessarily stop consuming substances at the end of their adolescence and it is far harder to give up once addicted (Schwinn, Hopkins, & Schinke, 2016), further research could be conducted into the link between depression or stress and consumption (Sinha & Rounsaville, 2002), the negative impacts of excessive alcohol use in sexual victimisation (Daigle, Johnson, Napper, & Azimi, 2016), the link between tobacco, amphetamines or diet pills, and weight loss and eating disorders (Kumpfer, Smith, & Summerhays, 2008), and prostitution as a means of funding habits.

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