Gender Perspective on Physical and Sexuality Education among High School Students in the Seoul Capital Area of South Korea[1]

Kim Dong-sik[2]
Kim Young-taek[3]

Abstract

This study attempted to examine the awareness of and attitudes toward gender-sensitive physical and sexuality education, as well as these programs' effectiveness, among high school students. For this purpose, we conducted a survey of 1,057 students in the Seoul capital area (Seoul, Incheon, and Gyeonggi Province region). This study found that whether and to what degree gender sensitivity was reflected in the operation of physical education classes can affect female students' attitudes towards exercise, and ultimately lowered the impact of the classes on health/physical fitness and the pleasure of exercising. Indeed, knowledge of and attitudes toward sex were highly correlated with the effectiveness of sexuality education, and knowledge about sex was a significant factor in determining related attitudes. In order to promote female students' health and their participation in physical education classes, we recommended the development of new sports and games that are customized to better meeting their needs. We also confirmed that adolescents' knowledge and attitudes toward sex played a significant role in them not only recognizing biological differences by gender and enhancing sexual consciousness, but also respecting their own and others' sexuality. Therefore, we suggest that gender-sensitive sexuality education should be implemented.

Key words: Gender perspectives, physical education, sexuality education, adolescents

[1] This paper is a part of "Adolescent Health from a Gender Perspective and Policy Issues," published by the Korean Women's Development Institute (2012).

[2] Research Fellow, Korean Women's Development Institute
[3] Research Fellow, Korean Women's Development Institute

Introduction

The World Health Organization (WHO) regional office for Europe has provided a set of gender tools in an effort to seek strategic interventions to assess existing adolescent health promotion programs/policies by nation and effectively support the health of male and female adolescents, pointing out that the importance of gender perspectives in youth health has been overlooked (WHO, 2011). Recognizing the need for gender perspectives in the in-school physical education that has functioned as a primary gatekeeper for adolescent health promotion, related Korean officials are also setting up a foundation to activate the physical activities of female students, such as by altering existing male-oriented sports to create new sports better tailored to female students (Ministry of Education, Science, and Technology; Ministry of Culture, Sports, and Tourism, 2011, 2012). However, considering that such new sports would also be a part of diverse physical education operation systems, it is necessary to ascertain how gender perspectives are currently being applied to school physical education operations and contents and how effective they are in enhancing the fitness and health of female and male students.

The area of adolescent health in the school environment is limited to physical activities implemented through physical education classes, thereby relatively overlooking the importance of health education that includes the comprehensive overall health of youths. In particular, the gender consciousness and behaviors of male and female adolescents are changing rapidly in divergent directions, but sexuality education is still conducted as a mere formality and in a gender-blind manner. Likewise, policies to enhance the health and gender consciousness of students within the school environment fail to sufficiently reflect biological and social differences by gender and are ultimately exposed to limitations in improving the effectiveness and efficiency of related education and projects, such as sports and health.

Therefore, by analyzing students' consciousness of and attitudes toward gender-sensitive education and its effectiveness, this study identifies a gender-sensitive approach to the school physical and sexuality education that serves as a primary gatekeeper for the health of adolescents.

Methods

In order to avoid regional imbalances around the Seoul capital area of South Korea, one target school was randomly allocated for each designated region. In total, 509 coed high schools around the metropolitan area were chosen and finally selected for this survey, which was conducted from June 25 to July 20, 2012. Only those that elected to take part were chosen as the final target schools.

We eventually selected second-year students as target subjects. Teachers briefed the students on the objectives of the survey and then distributed questionnaires. The students read the questionnaires and responded to each question. As a result, a total of 1,057

students completed the questionnaire.

Results

Gender Differences in the Recognition of Gender-sensitive Physical Education Class Operation by Teachers' Sex

The percentage of students who agree that class contents and evaluation items/criteria are less favorable to females was the highest among female students in physical education classes operated by male teachers, while the proportion was the lowest among male students in classes operated by female teachers. The same results were generated with respect to the question item of whether facilities and exercise tools are male-friendly. This signifies that gender sensitivity in terms of class contents, evaluation items/criteria, facilities, and exercise tools may differ by the gender of not only the students, but also of the teachers

Gender Differences in the Recognition of the Effectiveness of Physical Education Classes

More males than females responded that physical education classes help them improve their health/fitness and experience the joy or pleasure of exercising. In particular, the number of male students who responded 'absolutely yes' to the question regarding fitness enhancement was four times greater than that of female students who indicated the same response. Physical education classes were the most effective for male students taking part in classes led by male teachers, regardless of the type of class operated (such as coed or single-gender class).

Table 1. Gender differences in the recognition of gender-sensitive physical class operation by teachers' sex

(unit: mean (± SD))

	Male Students / Male Teachers	Male Students / Female Teachers	Female Students / Male Teachers	Female Students / Female Teachers	F p-value
Class contents differ by gender.	1.83 (±0.87)	1.67 (±0.77)	1.80 (±0.76)	1.76 (±0.74)	0.79
Class contents are less favorable to females than to males.	1.73 (±0.75)	1.45 (±0.66)	1.84 (±0.76)	1.78 (±0.73)	5.10**

(unit: mean (± SD))

	Male Students / Male Teachers	Male Students / Female Teachers	Female Students / Male Teachers	Female Students / Female Teachers	F p-value
Evaluation items (test items) differ by gender.	1.87 (±0.91)	1.97 (±1.06)	1.92 (±0.87)	1.78 (±0.83)	0.84
Evaluation items (test items) are less favorable to females than males.	1.64 (±0.69)	1.52 (±0.68)	1.80(±0.75)	1.77 (±0.70)	4.14**
Evaluation criteria differ by gender.	2.70 (±1.01)	2.55 (±1.13)	2.66 (±0.92)	2.49 (±0.90)	1.26
Evaluation criteria are less favorable to females than to males.	1.69 (±0.77)	1.46 (±0.66)	1.70 (±0.63)	1.79 (±0.64)	3.04*
Facilities are male-friendly.	2.03 (±0.86)	1.64 (±0.77)	1.97 (±0.78)	2.00 (±0.78)	4.23**
Exercise tools are male-friendly.	2.08 (±0.87)	1.87 (±0.89)	2.02 (±0.82)	2.07 (±0.80)	1.19
Class operation is male-oriented.	1.79 (±0.74)	1.57 (±0.74)	1.77 (±0.75)	1.77 (±0.69)	1.75
Teachers consider physical differences by gender for class operation.	2.81 (±0.91)	2.72 (±1.18)	2.81 (±0.78)	2.69 (±0.84)	0.63
Teachers segregate students by gender for class operation.	1.94 (±0.90)	1.91 (±1.04)	1.99 (±0.84)	1.94 (±0.88)	0.24
The degree of difficulty is properly adjusted by gender.	2.87 (±0.87)	2.73 (±1.02)	2.87 (±0.78)	2.86 (±0.71)	0.57
Activities are properly allocated by gender.	2.82 (±0.85)	2.75 (±1.02)	2.80 (±0.77)	2.82 (±0.73)	0.16

*p < 0.05, **p < 0.01, ***p < 0.001

Table 2. Gender differences in the recognition of the effectiveness of physical education classes

(unit: persons (%), mean (± SD))

		Coed Class					Single-gender Class					F p-value
		Absolutely 'No'	Mostly 'No'	Mostly 'Yes'	Absolutely 'Yes'	Total	Absolutely 'No'	Mostly 'No'	Mostly 'Yes'	Absolutely 'Yes'	Total	
Male Students	Fitness was enhanced.	42 (10.9)	98 (25.4)	198 (51.3)	48 (12.4)	386 (100.0)	5 (3.7)	28 (20.6)	79 (58.1)	24 (17.6)	136 (100.0)	1.33**
		2.65 (±0.83)					2.90 (±0.72)					
	Health was enhanced.	35 (9.1)	99 (25.6)	201 (52.1)	51 (13.2)	386 (100.0)	6 (4.4)	21 (15.5)	83 (61.0)	26 (19.1)	136 (100.0)	1.26**
		2.69 (±0.81)					2.95 (±0.72)					
	The joy or pleasure of exercising could be felt.	28 (7.2)	69 (17.9)	203 (52.6)	86 (22.3)	386 (100.0)	5 (3.7)	31 (22.8)	65 (47.8)	35 (25.7)	136 (100.0)	1.08
		2.90 (±0.83)					2.96 (±0.80)					
	Total	8.25 (±2.27)					8.80 (±2.06)					1.21*
Female Students	Fitness was enhanced.	44 (11.1)	148 (37.5)	186 (47.1)	17 (4.3)	395 (100.0)	10 (7.5)	53 (39.9)	66 (49.6)	4 (3.0)	133 (100.0)	1.2
		2.45 (±0.75)					2.48 (±0.68)					
	Health was enhanced.	51 (12.9)	159 (40.3)	171 (43.3)	14 (3.5)	395 (100.0)	8 (6.0)	56 (42.1)	64 (48.1)	5 (3.8)	133 (100.0)	1.26
		2.37 (±0.75)					2.50 (±0.67)					
	The joy or pleasure of exercising c-ould be felt.	35 (8.9)	103 (26.1)	209 (52.9)	48 (12.1)	395 (100.0)	5 (3.8)	41 (30.8)	70 (52.6)	17 (12.8)	133 (100.0)	1.22
		2.68 (±0.80)					2.74 (±0.72)					
	Total	7.50 (±2.04)					7.72 (±1.76)					1.35

*p < 0.05, **p < 0.01, ***p < 0.001

Associations between Awareness of the Gender-sensitive Operation of Physical Education Classes and their Effectiveness

Female students who consider class contents and evaluation items/criteria to be less favorable to females responded that differences in physical characteristics, the degree of difficulty, and the amount of activity by gender were not considered in class operation. Female students who reported that physical education classes should be male-oriented, that male students enjoy exercising and that males should be good at it are more likely to be exposed to classes where differences in physical characteristics, the degree of difficulty, and the amount of activity by gender are not properly reflected. Furthermore, the more they recognize that class contents and evaluation items/criteria are less favorable to females and that facilities, exercise tools, and class operation are male-friendly, the less female students acknowledge that physical education classes help them improve their health/fitness and experience the joy or the pleasure of exercise.

Such results confirm that whether and to what degree gender sensitivity is reflected in the operation of physical education classes can affect female students' attitudes towards exercise and ultimately lower the effectiveness of such classes in terms of health/fitness enhancement and experiencing the joy or pleasure of exercise.

Table 3. Correlations between male/female students' awareness of the gender-sensitive operation and effectiveness of physical education classes

	Contents	1	2	3	4	5	6
Male Students (N=502)	Class contents and evaluation items/criteria differ by gender.	1					
	Class contents and evaluation items/criteria are less favorable to females.	0.40***	1				
	Facilities, exercise equipment, and class operation are male-friendly.	0.40***	0.59***	1			
	Differences in physical characteristics, the degree of difficulty & the amount of activity by gender are considered in class operation.	0.25***	0.03	0.17***	1		
	The class operation is male-oriented/ males like exercise and should be good at it.	0.21***	0.41***	0.38***	0.06	1	
	Stamina & health were enhanced, the joy or pleasure of exercising were able to be felt.	0	0.04	0.09	0.18***	0.07	1

	Contents	1	2	3	4	5	6
Female Students (N=507)	Class contents and evaluation items/criteria differ by gender.	1					
	Class contents and evaluation items/criteria are less favorable to females.	0.34***	1				
	Facilities, exercise equipment, and class operation are male-friendly.	0.39***	0.57***	1			
	Differences in physical characteristics, the degree of difficulty, and the amount of activity by gender are considered for class operation.	0.18***	-0.18***	-0.10*	1		
	The class operation is male-oriented/ males like exercises and should be good at them.	0.10*	0.32***	0.27***	-0.14**	1	
	Stamina & health were enhanced, the joy or pleasure of exercising were able to be felt.	0.02	-0.17***	-0.12**	0.26***	-0.22***	1

*p < 0.05, **p < 0.01, ***p < 0.001

Gender Differences in the Awareness of Effectiveness of Sexuality Education

Sexuality education is deemed to be more effective for females than males in terms of recognizing biological differences by gender, enhancing sex consciousness, and satisfying curiosity about sexual relationships, contraception, pregnancy, and childbirth. However, in the context of respecting their and others' sexuality, the reverse is true. Even so, statistically significant differences by gender were not found. Both male and female students think that sexuality education is more effective in single-gender classes than in coed classes. Of course, as mentioned earlier, inter- and intra-gender differences in terms of the type of class operation were not statistically significant. With regard to this point, more in-depth analyses are judged to be required but sexuality education is considered to be more effective for male students than for female students and for single-gender classes than for coed classes.

Table 4. Gender differences in the awareness of effectiveness of sexuality education

(unit: persons (%), mean (± SD))

		Coed Class					Single-gender Class					F p-value
		Absolutely 'No'	Mostly 'No'	Mostly 'Yes'	Absolutely 'Yes'	Total	Absolutely 'No'	Mostly 'No'	Mostly 'Yes'	Absolutely 'Yes'	Total	
Male Students	Biological differences by gender were able to be understood.	39 (9.7)	61 (15.1)	248 (61.5)	55 (13.7)	403 (100.0)	6 (4.9)	23 (18.8)	69 (56.6)	24 (19.7)	122 (100.0)	1.09
		2.79 (±0.80)					2.91 (±0.76)					
	Sex consciousness was enhanced.	38 (9.4)	70 (17.4)	240 (59.5)	55 (13.7)	403 (100.0)	8 (6.6)	30 (24.6)	61 (50.0)	23 (18.8)	122 (100.0)	1.04
		2.77 (±0.80)					2.81 (±0.82)					
	Curiosity regarding sexual relationships, contraception, pregnancy, and childbirth was satisfied	39 (9.7)	82 (20.3)	234 (58.1)	48 (11.9)	403 (100.0)	7 (5.7)	27 (22.1)	67 (53.3)	34 (18.9)	122 (100.0)	1.02
		2.72 (±0.80)					2.85 (±0.79)					
	The fact that everyone's sexuality must be carefully respected was able to be understood.	28 (6.9)	39 (9.7)	214 (53.1)	122 (30.3)	403 (100.0)	4 (3.3)	17 (13.9)	67 (54.9)	34 (27.9)	122 (100.0)	1.23
		3.07 (±0.82)					3.07 (±0.74)					
	Total	11.35 (±2.77)					11.65 (±2.75)					1.02
Female Students	Biological differences by gender were able to be understood.	26 (6.3)	79 (19.2)	268 (65.0)	39 (9.5)	412 (100.0)	4 (3.4)	29 (24.8)	78 (66.7)	6 (5.1)	117 (100.0)	1.33
		2.78 (±0.70)					2.74 (±0.61)					
	Sex consciousness was enhanced.	30 (7.3)	92 (22.3)	246 (59.7)	44 (10.7)	412 (100.0)	6 (5.1)	25 (21.4)	80 (68.4)	6 (5.1)	117 (100.0)	1.37
		2.74 (±0.74)					2.74 (±0.64)					
	Curiosity regarding sexual relationships, contraception, pregnancy, and childbirth was satisfied	28 (6.8)	104 (25.2)	249 (60.5)	31 (7.5)	412 (100.0)	4 (3.4)	30 (25.6)	75 (64.1)	8 (6.9)	117 (100.0)	1.26
		2.69 (±0.71)					2.74 (±0.63)					
	The fact that everyone's sexuality must be carefully respected was able to be understood	19 (4.6)	28 (6.8)	255 (61.9)	110 (26.7)	412 (100.0)	2 (1.7)	11 (9.4)	69 (59.0)	35 (29.9)	117 (100.0)	1.17
		3.11 (±0.71)					3.17 (±0.66)					
	Total	11.31 (±2.45)					11.38 (±2.00)					1.5

*p < 0.05, **p < 0.01, ***p < 0.001

Associations among Sex Knowledge, Sex Attitudes, and the Effectiveness of Sexuality Education by Gender

Generally speaking, the higher the level of sex knowledge both male and female students possess, the less conservative they are in dealing with sexual matters and the more they recognize the effectiveness of sexual education. In particular, the correlations between sex knowledge and sex attitudes are relatively higher in the female group than in the male group. In addition, the more conservative they are in coping with sexual matters, the less they acknowledge the effectiveness of sexuality education. These results represent the fact that sex knowledge and attitudes are highly correlated with the effectiveness of sexuality education and that sex knowledge is a significant factor in determining attitudes toward sex

Table 5. Correlations among sex knowledge, attitudes toward sex and the effectiveness of sexuality education by gender

Contents		1	2	3
Male Students (N=520)	A high level of sex knowledge	1		
	Very conservative (prejudiced) in dealing with sexual matters.	-0.37***	1	
	Sexuality education helped in understanding biological differences by gender, enhancing sexual consciousness, satisfying curiosity about sexual matters, and recognizing the fact that everyone's sexuality must be respected.	0.21***	-0.17***	1
Female Students (N=524)	A high level of sex knowledge	1		
	Very conservative (prejudiced) in dealing with sexual matters.	-0.45***	1	
	Sexuality education helped in understanding biological differences by gender, enhancing sexual consciousness, satisfying curiosity about sexual matters, and recognizing the fact that everyone's sexuality must be respected.	0.19***	-0.09	1

*p < 0.05, **p < 0.01, ***p < 0.001

Correlations between Physical Education Classes and Sexuality Education by Gender

Overall, the less favorable the class contents and evaluation items/criteria are to female students and the more male-friendly the facilities, exercise tools, and class operation are, the more negative and conservative the students are in coping with sexual matters and the less effective the sexuality education is in recognizing biological differences by gender, enhancing sex consciousness, satisfying curiosity about sexual matters, and respecting others' sexuality. What should be noted is that physical education classes are highly correlated with sexuality education in terms of their effectiveness. In other words, the more that the students recognize that physical education classes can help them enhance their health/stamina and experience the joy or the pleasure of exercising, the more they feel the effectiveness of sexuality education in acknowledging biological differences by gender, enhancing their sex consciousness, satisfying their curiosity about sexual matters, and respecting their own and others' sexuality. More specifically speaking, only the female group shows that the more different the class contents and evaluation items/criteria are by gender, the less conservative they are in handling sexual matters (negative correlation). The more male-friendly the facilities, exercise tools, and class operation are, the more conservative they are towards sexual matters. The more they misjudge that physical education classes should be male-oriented and that male students should like and be good at exercising, the lower the level of sex knowledge they report. With respect to this, statistical significance is only observed in the female group.

Therefore, in terms of alleviating conservative attitudes (prejudice) towards sex, the gender-sensitive operation of physical education classes is judged to be more effective for female students than for male students. This links to the fact that the less favorable the class contents and evaluation items/criteria are to females, the more conservative female students are in dealing with sexual matters. This phenomenon is only witnessed in the female group.

Conclusions

This study shows that both female and male students more effectively enhance their health/stamina and experience more joy or pleasure in exercising if physical education teachers consider differences in physical characteristics, the degree of difficulty and the amount of activity by gender in the operation of coed classes. In particular, such features are more clearly witnessed in the female student group. Unlike male students, the more the female students recognize that class contents and evaluation items/criteria are less favorable to them and the more they think that the class operation is male-oriented, the less they experience health/stamina enhancement and the joy or pleasure of exercising. Such results represent that the gender-sensitive operation of coed physical education classes can play a significant role in male and female students, especially female students, enhancing their health/stamina and participating in exercises. Therefore, the male-oriented operation of physical education classes or the selection of male-friendly evaluation items/sports games

Table 6. Correlations between physical education classes and sexuality education by gender

	Contents	1	2	3	4	5	6	7	8	9
Male Students (N=363)	Class contents and evaluation items/criteria differ by gender.	1								
	Class contents and evaluation items/criteria are less favorable to females.	0.37***	1							
	Facilities, exercise tools, and class operation are male-friendly.	0.36***	0.56***	1						
	Differences in physical characteristics, the degree of difficulty, and the amount of activity by gender are considered for class operation.	0.25***	0.03	0.17**	1					
	The class operation is male-oriented/males like exercise and should be good at them.	0.24***	0.41***	0.37***	0.07	1				
	Stamina & health were enhanced, the joy or pleasure of exercising were able to be felt.	-0.05	0.01	0.02	0.14**	0.05	1			
	A high level of sex knowledge	0.05	-0.04	0	0.18***	-0.07	0.02	1		
	Very conservative (prejudiced) in dealing with sexual matters.	-0.01	0.15**	0.03	-0.20***	0.33***	0.05	-0.36***	1	
	Sexuality education helped in understanding biological differences by gender, enhancing sexual consciousness, satisfying curiosity about sexual matters, and recognizing the fact that everyone's sexuality must be respected.	-0.06	-0.03	-0.02	0.17**	-0.04	0.29***	0.21***	-0.18***	1
Female Students (N=377)	Class contents and evaluation items/criteria differ by gender.	1								
	Class contents and evaluation items/criteria are less favorable to females.	0.37***	1							
	Facilities, exercise tools, and class operation are male-friendly.	0.43***	0.59***	1						
	Differences in physical characteristics, the degree of difficulty, and the amount of activity by gender are considered for class operation.	0.18***	-0.15**	-0.06	1					
	The class operation is male-oriented/males like exercises and should be good at them.	0.14**	0.31***	0.28***	-0.13*	1				
	Stamina & health were enhanced, the joy or pleasure of exercising were able to be felt.	-0.05	-0.19***	-0.18***	0.28***	-0.24***	1			
	A high level of sex knowledge	0.17***	-0.03	-0.04	0.14**	-0.17***	0.08	1		
	Very conservative (prejudice) in dealing with sexual matters.	-0.13**	0.12*	0.14**	-0.18***	0.31***	0.01	-0.48***	1	
	Sexuality education helped in understanding biological differences by gender, enhancing sexual consciousness, satisfying curiosity about sexual matters, and recognizing the fact that everyone's sexuality must be respected.	0.02	-0.12*	-0.12*	0.17**	-0.20***	0.20***	0.14**	-0.08	1

*p < 0.05, **p < 0.01, ***p < 0.001

may positively affect males, but have negative effects on females in terms of enhancing health/stamina and participation in exercises.

Furthermore, this study confirms that physical education teachers and males students have an erroneous perception and a prejudice regarding female students and exercise. Namely, more males than females were found to think that female students avoid, are bad at, and have less interest in exercising. In particular, the more prejudice the physical education teachers have of females' exercising, the more male-friendly the class operation is and the less favorable the class contents and evaluation items/criteria are to female students. On the contrary, more females than males responded negatively to the question, "Should female students avoid sweaty exercises and take a rest?" Furthermore, more females than males recognize that exercise plays an important role in maintaining a healthy life. Many more females than males agree that females' participation in physical education classes is low due to lack of proper programs. Therefore, in order to help such female students to more actively take part in sports activities, new sports programs that they prefer, like, and can enjoy need to be developed and applied. A majority of physical education teachers who participated in this survey designed to study how to aid female students in promoting their health and taking part in physical education classes recommended new sports activities that are customized to better meet the needs of female students.

This study confirms that adolescents' sex knowledge and attitudes play a significant role in them not only recognizing biological differences by gender and enhancing sex consciousness but also respecting their and others' sexuality. Namely, adolescents who properly understand biological differences by gender and gender differences in sexual instincts, sexual relationships, and pregnancy have a higher level of sex consciousness and are more aware of the value of their own and others' sexuality compared to those who do not comprehend such differences.

According to this research, the higher the level of sex knowledge they possess, the more gender-sensitive attitude the male and female adolescents report. However, even though they have a higher level of sex knowledge, most adolescents tend not to know how to cope with sexual matters (contraception, etc.) when they are (or were) involved in actual sexual relationships or misunderstand the responsibility for using contraception. More male students than female students showed positive responses to the following question items: 1) women, rather than men, should be responsible for contraception; 2) women are a major contributor to sexual violence. This represents that the current sexuality education is not properly directed towards students and is offered in a unilateral and gender-blind manner without sufficiently considering the demand for sexual matters that are customized by gender. Therefore, in order to promote the appropriate sexual consciousness and use of contraception, gender-sensitive sexuality education must first be implemented. The existing sexuality education in South Korea requires women to bear more of the burden and play a greater role, instead of regarding them as partners with equal rights. This often leads to the misconception that sex is a women's issue and that women's behavior regarding sex and contraception determines the sexual and contraception culture. Against this backdrop, women's voices are rarely heard in the process of selecting and using

contraception and they often overdose on contraceptive pills or are required to rely upon abortion with the consequent or physical and mental risks. This may be primarily because sexuality education for gender-equal sex consciousness and knowledge has not been properly offered in childhood.

References

Ministry of Education, Science, and Technology · Ministry of Culture, Sports, and Tourism (2011). *Key Operation Plans for School Physical Education 2011*. (http://www.mest.go.kr)

Ministry of Education, Science, and Technology · Ministry of Culture, Sports, and Tourism *(2012). Key Operation Plans for School Physical Education 2012*. (http://www.mest.go.kr)

World Health Organization Regional Office for Europe (2011). *Evidence for gender responsive actions to prevent and manage overweight and obesity; Young people's health as a whole-of-society response* (http://www.euro.who.int)