

Linköping University Post Print

Violence Against Young Men and Women: A Vital Health Issue

Niclas Olofsson, Kent Lindqvist, Katja Gillander Gadin and Ingela Danielsson

N.B.: When citing this work, cite the original article.

Original Publication:

Niclas Olofsson, Kent Lindqvist, Katja Gillander Gadin and Ingela Danielsson, Violence Against Young Men and Women: A Vital Health Issue, 2009, The Open Public Health Journal, (2), 1-6.

<http://dx.doi.org/10.2174/1874944500902010001>

Postprint available at: Linköping University Electronic Press

<http://urn.kb.se/resolve?urn=urn:nbn:se:liu:diva-20894>

Violence Against Young Men and Women: A Vital Health Issue

Niclas Olofsson^{*,1}, Kent Lindqvist¹, Katja Gillander Gådin² and Ingela Danielsson³

¹Department of Medicine and Health, Division of Social Medicine and Public Health Science, Linköping University, Linköping, Sweden

²Department of Health Sciences, Mid-Sweden University, Sundsvall, Sweden

³Department of Public Health and Research and Department of Obstetrics and Gynaecology, Sundsvall Hospital, Sundsvall, Sweden

Abstract: *Objectives:* Violence is regarded as a major health issue in an increasing amount of literature and is known as an important factor in women's ill health. Little however is known about violence against young men and women and its impact on their health. The principal aim of this study was to analyze health outcomes and health care utilization as reported among men and women aged 18-25 exposed and not exposed to physical and/or emotional violence.

Study design: A cross-sectional national health survey in Sweden.

Methods: Postal questionnaires were sent to nearly 3,000 men and women. Three questions were used to ask about violence. Sociodemographic characteristics for those exposed to violence during the past 12 months were analyzed and compared to those not exposed. Crude and adjusted odds ratios were calculated for health outcomes and medical care utilization.

Results: Increased odds ratios were found for most health outcomes, and health care utilization for those exposed to violence compared to non-exposed. After adjusting for socioeconomic factors, smoking, and use of alcohol and cannabis, most variables were principally unchanged for women but considerably lower for men. Socioeconomic factors, smoking, and the use of drugs were all correlated to victimization.

Conclusions: A strong association between those exposed to violence and physical and mental ill health was demonstrated also after adjusting for possible confounders, specifically for women. It is time to include questions about violence in public health questionnaires aimed at young people, but also to start asking about it more frequently in health care settings.

Keywords: Young men, young women, health status, medical service, public health survey, violence.

INTRODUCTION

Violence is increasingly recognised as a public health problem and, in 1996, the WHO declared violence a major health issue, publishing its first World Report on Violence and Health in 2002 [1]. In 2005, the results of a major multi-country study of domestic violence against women were presented [2, 3]. The conclusion was that violence against women is an important risk factor for women's ill-health and should receive greater attention and that domestic violence is very common but varies widely from place to place and country to country. A strong association between violence and various health outcomes was demonstrated. Several earlier studies of domestic violence against women have produced similar results [4-9]. Occasional studies have demonstrated mainly mental but also to some extent physical health consequences of intimate partner violence in men as well [10]. However, only a few reports on violence against teenagers and young women and men have been published, apart from studies relating to dating violence, which are

fairly abundant [11-19]. There is no strict definition of dating violence, but it is often described as physical violence, sometimes also including emotional or sexual violence, by a boyfriend, dating partner or intimate partner [13, 16, 18, 20]. Quite a few population-based studies of the association between violence and health outcomes in young men and women have been published so far, but those that have been published have mainly dealt with dating violence and mental or sexual health [11, 13, 15, 16, 18, 21-24]. Moreover, socioeconomic correlates have rarely been reported or adjusted for in earlier studies [13, 18, 22].

The authors of this paper have studied data from a national public health survey conducted in Sweden in 2004. We wanted to report the prevalence of physical and emotional violence among the young men and women answering a health questionnaire in which the questions about violence were clear cut and did not include any differentiation of the violence, apart from "physical violence" and "threats".

The principal aim, though, was to compare health outcomes for young men and women exposed to violence during the past 12 months with those of young men and women not exposed to violence, not delimited to dating

*Address correspondence to this author at the Management Staff, Department of Public Health SE-871 85 Härmösand, Sweden; Tel: +46 61180078; E-mail: niclas.olofsson@lvn.se

violence. Another aim was to examine the use of medical services by those exposed and not exposed to violence and also to analyze various socioeconomic correlates for victimization.

METHODS

Data from a nationwide public health survey conducted in 2004 by the Swedish National Institute of Public Health were analysed. A nationally representative sample of almost 64,000 men and women aged 18-64 was asked to reply to a questionnaire called Equal health?, which was sent to them by mail. Data from men and women between the ages of 18-25 were selected for the analyses in this study, which comprised 1,603 men and 1,923 women. The response rate for this age group was 49% for men and 64% for women. The completion rate concerning the questions about violence was 97%.

The questionnaire contained about 80 questions, 40 of which related to physical and mental health and the use of the health care system, 30 pertained to socioeconomic factors, form of housing and work environment, while five dealt with cigarette smoking and the use of alcohol and cannabis. Three questions regarding violence were included under the heading of "security", worded as follows: (1) "Have you been exposed to physical violence during the last 12 months?", (2) "Where did it happen?" and (3) "Have you been exposed to any threats or threats of violence that made you scared during the last 12 months?". Questions (1) and (3) had binary answers, yes or no, while (2) had several given alternatives.

Relevant questions for the age group regarding health, use of medical care and socioeconomic factors were chosen from the questionnaire for the analyses in this study. Most health variables had three response categories: no; yes, some problems; and yes, severe problems. They were dichotomised into (1) no and yes, some problems; and (2) yes, severe problems. There was one question about accidents: "Have you been involved in one or more accidents that caused you to seek medical care during the last three months?". The answers were dichotomised into (1) no and

(2) yes, once or several times. The questions being about the use of medical care had two response alternatives (1) no and (2) yes. To assess mental health, the 12 questions from the General Health Questionnaire (GHQ 12) were included [25]. The GHQ is one of the most thoroughly tested questionnaires relating to mental health and is used for screening current general psychological and psychiatric disorders [26].

Of three questions relating to the subjects' financial situation, one was picked out as best for young people: "Have you had any problems during the past 12 months paying your usual expenses for rent, food, bills and so on?". The answers were dichotomised into (1) no and (2) yes, once and yes, several times. Regarding education, the answers were dichotomised into (1) all levels of education less than a total of 12 years and (2) education of 12 years or more.

Alcohol use was assessed using the Alcohol Use Disorders Identification Test (AUDIT), constructed by the WHO in 1992 [27] and widely used for adults but also for young men and women [28-30]. The first three AUDIT questions regarding consumption were used and different cut-off values for men and women were chosen to discriminate hazardous drinking [28]. For smoking, one question was chosen, namely, "Are you a daily smoker?", while the following question was used for cannabis: "Have you used any form of cannabis during the past year?".

Statistical Analyses

To adjust for skewed dropout rates and selection differences between different areas, various weights were calculated by calibration by Statistics Sweden, which carried out the original survey on behalf of the Swedish National Institute of Public Health. These weights were applied to each participant and were used throughout all the analyses. The statistical analyses were conducted using the SPSS program 13.1. Binary logistic regression was used to analyse for possible associations between violence and socioeconomic factors and different health outcomes. Multivariate logistic regression was used to analyse the association between violence and health outcomes,

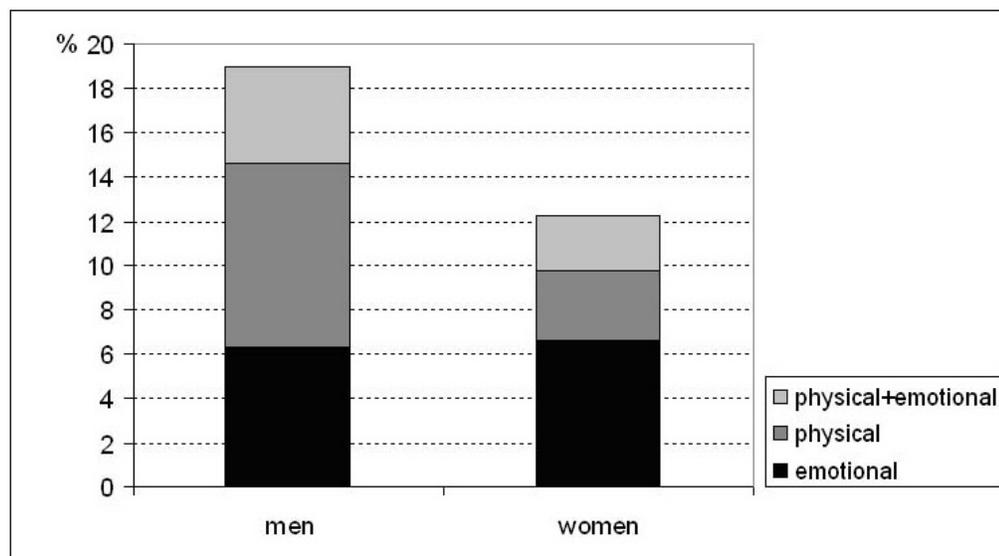


Fig. (1). The prevalence of violence, physical and/or emotional, during the last 12 months among young men and women aged 18-25 years.

controlling for socioeconomic factors and smoking. The chi-square test was used to analyse for significant differences in socioeconomic background (education, unemployment, financial situation, civil status), smoking, hazardous alcohol use and the use of cannabis for those exposed to violence compared with those not exposed. The significance level used was < 0.05 .

Ethics

All the young men and women were informed about the study and asked to answer the questions as instructed in a cover letter enclosed with the questionnaire. Answering the questionnaire was regarded as consenting to join the study. The Ethics Committee at the Swedish National Board of Health and Welfare approved the survey.

RESULTS

The prevalence of violence, physical as well as emotional, during the past 12 months is shown in Fig. (1).

The prevalence for young men was 19.2% and for young women 12.7%. The place where the physical violence took place differed somewhat between men and women. Among the men, 61.7% had been exposed to violence in a public place, while 18.9% were exposed in a home environment, while young women had been exposed to violence almost as often in a home (38.4%) as in a public place (41.3%). An equal number of men and women had been subjected to violence at their place of work (18%).

In Table 1, age and the frequencies of various socioeconomic variables, as well as smoking, hazardous alcohol use and use of cannabis, are given for young men and women exposed and not exposed to violence. Significant differences were seen for all variables. For several factors, the differences were small, but, for financial problems, the differences were substantial between those not exposed to violence and those exposed to violence, for both sexes. Young women exposed to violence were more frequently

daily smokers than those who were not exposed, while abused men much more frequently had hazardous drinking habits. Both young men and women exposed to violence had a greater tendency to use cannabis than those not exposed.

Crude and adjusted odds ratios for different health outcomes and the use of medical care for men and women exposed vs. not exposed to violence are given in Table 2. The crude odds ratios were considerably higher for most variables for both sexes, not only those describing mental health characteristics but also variables such as general health and severe allergic and asthmatic problems.

The exposed women in particular answered more frequently that they had been involved in an accident that caused them to seek medical care. The odds ratios for different forms of health care utilisation were higher for both men and women. Furthermore, both women and men exposed to violence had higher odds ratios when it came to needing medical treatment but not applying for it. When the odds ratios were adjusted for socioeconomic variables and smoking, most ratios for the women were unaltered or showed only small changes, with the exception of anxiety/nervousness, fatigue/insomnia and being overweight, where the odds ratios were considerably lower. For men, several odds ratios were lower but still increased, namely, general health and anxiety/nervousness, while some odds ratios approached zero or even lower, most noticeably for different medical care utilisation. When hazardous alcohol use and the use of cannabis were added to the analyses, only minor changes in the odds ratios, if any, were observed. These are therefore not further reported here.

DISCUSSION

The most essential finding in this study was the strong association between a self-reported history of violence and a poorer health outcome in a wide range of physical and psychological health variables, for both young men and women, compared with those not exposed to violence. Moreover, only minor changes were noted in the odds ratios

Table 1. Age and Frequencies of Socioeconomic Characteristics, Smoking, Hazardous Drinking and use of Cannabis for Men and Women who have been Exposed to Violence During the Last 12 Months vs. those that have Not

Variable	Not exposed	Exposed	Not exposed	Exposed
	Men		Women	
Age (mean)	21.2	20.9***	21.2	20.9***
Educational level less than 12 yrs, %	8.1	11.5***	7.7	11.0***
Currently unemployed/on sick leave, %	11.2	13.8***	10.7	12.2***
Financial problems past year, %	21.9	33.7***	29.6	46.6***
Single, living with no children, %	18.4	27.5***	16.9	16.0***
Single, living with child/children, %	0.3	1.0***	1.2	5.0***
Not born in Sweden, %	12.3	10.9***	10.2	15.0***
Daily smoking, %	7.1	12.8***	18.0	36.3***
Hazardous drinking, %	34.2	64.0***	29.0	35.8***
Used cannabis past year, %	8.8	17.0***	3.9	13.6***

***p < 0.001 for chi2 for the differences between men and women exposed and not exposed to violence respectively.

Table 2. Crude and Adjusted Odds Ratios (OR) and Confidence Intervals for Health Outcomes and use of Medical Care, Adjusted for Socioeconomic Factors and Smoking, for Young Men and Women Exposed to Violence and/or Threats During the Last 12 Months, Compared with those not Exposed

Variables	Women		Men	
	Crude OR	Adjusted OR	Crude OR	Adjusted OR
Poor or very poor general health	3.4(3.3-3.6)	3.4(3.3-3.6)	3.4(3.2-3.5)	2.2(2.1-2.3)
One or several accidents [#]	2.3(2.2-2.3)	2.1(2.1-2.2)	1.3(1.2-1.3)	1.1(1.1-1.2)
Long-term illness or disability	1.9(1.9-2.0)	1.9(1.9-2.0)	0.9(0.9-1.0)	0.8(0.8-0.8)
Reduced mental health (GHQ 12)	2.3(2.2-2.3)	2.2(2.1-2.2)	2.4(2.4-2.5)	2.0(2.0-2.1)
Anxiety or nervousness*	2.6(2.5-2.7)	1.6(1.5-1.6)	2.3(2.2-2.4)	1.9(1.9-2.0)
Fatigue and insomnia*	4.1(4.0-4.3)	1.7(1.6-1.8)	4.2(4.0-4.5)	4.2(3.9-4.4)
Stress*	2.1(2.1-2.2)	1.7(1.7-1.8)	1.9(1.8-2.0)	1.1(1.1-1.2)
Muscular/skeletal pain*	3.4(3.3-3.6)	3.1(3.0-3.3)	2.2(2.1-2.4)	3.8(3.4-4.3)
Headache or migraine*	1.7(1.6-1.8)	1.7(1.6-1.8)	1.6(1.5-1.7)	1.0(0.9-1.1)
Gastrointestinal problems*	1.2(1.1-1.2)	1.3(1.3-1.4)	1.6(1.5-1.7)	0.5(0.5-0.6)
Allergic symptoms*	1.9(1.8-1.9)	1.8(1.7-1.8)	1.2(1.2-1.3)	0.9(0.8-0.9)
Asthmatic symptoms*	1.6(1.5-1.8)	2.8 (2.6-3.1)	1.4(1.3-1.5)	N.A.
Consulted a physician [#]	1.5(1.4-1.5)	1.5(1.5-1.6)	0.8(0.8-0.9)	0.9(0.8-0.9)
Visited an emergency ward [#]	3.0 (2.9-3.1)	2.3(2.2-2.4)	1.1(1.0-1.2)	0.9(0.8-0.9)
Treated in a hospital [#]	3.0(2.8-3.2)	2.8(2.6-3.0)	1.8(1.7-1.9)	0.9(0.84-0.98)
In need of medical treatment, but have not consulted anyone [#]	2.5(2.4-2.5)	1.9(1.8-1.9)	1.8(1.7-1.8)	1.9(1.8-1.9)

*Severe problems, # Last 3 months.

for women after controlling for socioeconomic factors and smoking, while the changes were slightly larger for men. Earlier studies have reported a higher rate of pain complaints and psychological disturbances in young adults with a history of physical or sexual abuse, while depressive symptoms are more often reported in adolescents involved as victims – or perpetrators – of bullying [31, 32]. Some earlier population-based studies of adolescents and young adults have described an association between dating violence and health, mainly restricted to mental and gynaecological ill-health [15, 21, 22]. Sociodemographic variables and smoking and substance abuse have seldom been reported, or adjusted for.

Another important finding was the strong association between exposure to violence and the increased health care utilisation reported by the young women, but not by the men, after controlling for socioeconomic factors, smoking and the use of alcohol and cannabis. Some earlier studies have reported greater health care utilisation for both sexes exposed to violence, particularly for young women, but these studies have not controlled for socioeconomic factors [31, 33]. In another article on adolescent victimisation and the subsequent use of mental health counselling services, the odds ratios for the use of mental health services were higher for young men and women exposed to violence, but not after controlling for background factors [14]. In that study, both sexes were analysed together. Some previous studies have identified more severe physical and psychological consequences for young women exposed to partner violence compared with young men [11, 20, 34]. The vast majority of

the men exposed to violence in our study had been subjected to violence in a public place and this violence was therefore probably not inflicted by an intimate partner, while 40% of the women exposed to violence had been exposed to violence in a domestic setting and a higher percentage may possibly have been the victims of violence inflicted by an intimate partner. Taken together, these findings indicate that violence against young women often differs from that against young men, frequently occurring at other places and possibly in other situations, with consequences that are more serious for the health of the women. This underlines the importance of analysing the results for men and women separately but also of controlling for socioeconomic factors.

In spite of the increased health care utilisation demonstrated at least for women, it has been reported that, when young men and women were asked if they had ever turned to anyone for help in relation to the violence in their dating relationship, the vast majority of both sexes had not sought professional help [35]. Furthermore, even if a strong relationship between victimisation in women and poor sexual health has been demonstrated in several studies, very few gynaecologists raise any questions about previous violence during visits to doctors' offices [21, 22, 36]. Probably most women –and men – exposed to violence, as well as the physicians they visit for treatment, are not aware that their symptoms have anything to do with former abuse, except in cases of acute physical injuries, when at least those seeking medical care understand the connection.

Another interesting finding was the increased risk, particularly for exposed women compared with those who

were not exposed, of reporting that they had been involved in an accident during the last three months. This could perhaps be understood as a more or less deliberate interpretation of violence by a partner or a friend as an accident. Another explanation could be that some of the women exposed to violence live in a violent environment, but this is at least partly controlled for.

Young men and women do not face equal risks of exposure to violence. There were significant differences for all socioeconomic variables and the use of various drugs for those exposed to violence compared with those who were not. For some variables, the differences were small, while for others they were substantial. Abused women had financial problems more often and were more frequently single parents. Abused men were most often single with no children. Earlier studies have revealed similar results [13, 16]. Both men and women exposed to violence were more often daily smokers and had used cannabis more frequently over the past year and the men in particular more frequently had hazardous drinking habits. It is important to remember, however, that the majority of both men and women exposed to violence had no socioeconomic disadvantages, were not cigarette or cannabis smokers and did not have hazardous drinking habits, except for the young men, who were represented by more than 60%. It is impossible to tell from this study whether the violence was experienced in connection with drinking or whether the alcohol was used, for example, to reduce pain or anxiety after an experience of violence or threats, as discussed by Campbell in an article in *The Lancet*, in which she pointed out that physical abuse may contribute to both cigarette and substance abuse [7].

The strength of this study is the fact that it is based on a nationwide public health survey conducted by the Swedish National Institute of Public Health, in collaboration with Statistics Sweden, which has previously conducted several similar studies. The questionnaire included questions from several different, well-validated instruments. One drawback of the study, however, is the relatively low response rate, especially for the young men, but, by using weights that were constructed partly to overcome the problem of skewed dropout rates, the data can be regarded as representative for Swedish men and women aged 18-25.

There may be some reasons for criticising the questions about violence in this study. Questions of this type have been used in several Swedish health surveys and in some international studies of dating violence [15, 16, 37], while others have used more specific questions or questionnaires, with different kinds of physical violence often being exemplified [13, 20, 34]. For a study of the prevalence of violence, especially intimate partner violence or domestic violence, they might well be insufficient. Some researchers have argued in favour of more differentiated questions, where varying sorts of emotional, physical and sexual violence are described [2]. Furthermore, the questions did not allow for an analysis of the extent of the violence, nor were there any questions about the perpetrator. It is likely that more specific questions about violence would yield higher prevalence rates, since "mild" violence such as hitting or pushing may not always be perceived as violence as such. However, the main purpose of this study was not to analyse the prevalence or degree of different sorts of violence but to

compare different health outcomes among those exposed and not exposed to violence.

The prevalence of violence among young men and women is most often described as dating violence. Extremely conflicting results about the prevalence of dating violence have been reported, with one-year prevalence rates ranging from 9 to 37% for young women and 6 to 36% for young men, probably partly because dating violence has not been strictly defined, but also because the questions relating to violence have differed greatly [11, 12, 15, 16, 20, 21, 34, 37]. In this study, the prevalence of violence was higher among the young men, but, as has been pointed out earlier, the aftermath appeared to be worse for the young women, with higher odds ratios for most health outcomes and specifically for health care utilisation.

The cross-sectional design of the study does not make it possible to tell which comes first, the ill-health or the exposure to violence or threats. Like several other researchers in the field, the authors believe that health is influenced by violence and/or threats, even if the exact mechanism is not known [1, 7, 38]. Regardless of whether or not this analysis is correct, it is important for professionals who meet young people in hospitals, clinics, doctor's offices, adolescent health centres and schools to be aware of the strong association between violence and psychological and varying forms of physiological ill-health. Several authors have argued that routine questions about violence should be used in various types of medical care setting, principally for adult women [7, 38].

CONCLUSIONS

In our opinion, this is equally important for young men and women, who are the ones most frequently exposed to violence [11, 13, 39]. It also seems apparent that questions about violence should be included in health surveys aimed at young people. One major challenge is to help the staff that work with young people to obtain the courage, strength and knowledge to ask, listen to and help these young men and women find their way to enhanced health and enable them to move on with their lives. An even greater challenge is to find ways of reducing violence among young people.

ACKNOWLEDGEMENTS

Funding

The study was supported by grants from the Mid-Sweden Research and Development Centre.

DECLARATIONS

Conflicts of interest; none to declare.

ETHICS

All the young men and women were informed about the study and asked to answer the questions as instructed in a cover letter enclosed with the questionnaire. Answering the questionnaire was regarded as consenting to join the study. The Ethics Committee at the Swedish National Board of Health and Welfare approved the survey.

REFERENCES

- [1] Krug EG, Mercy JA, Dahlberg LL, Zwi AB. The world report on violence and health. *Lancet* 2002; 360: 1083-8.
- [2] Garcia-Moreno C, Jansen H, Ellsberg MC, Heise L, Watts C. WHO Multi-country Study on Women's Health and Domestic Violence against Women. Geneva: WHO; 2005.
- [3] Garcia-Moreno C, Jansen HA, Ellsberg M, Heise L, Watts CH. Prevalence of intimate partner violence: findings from the WHO multi-country study on women's health and domestic violence. *Lancet* 2006; 368: 1260-9.
- [4] Coker AL, Smith PH, Bethea L, King MR, McKeown RE. Physical health consequences of physical and psychological intimate partner violence. *Arch Fam Med* 2000; 9: 451-7.
- [5] Plichta SB, Falik M. Prevalence of violence and its implications for women's health. *Womens Health Issues* 2001; 11: 244-58.
- [6] Krantz G. Violence against women: a global public health issue! *J Epidemiol Community Health* 2002; 56: 242-3.
- [7] Campbell JC. Health consequences of intimate partner violence. *Lancet* 2002; 359: 1331-6.
- [8] Helweg-Larsen K, Kruse M. Violence against women and consequent health problems: a register-based study. *Scand J Public Health* 2003; 31: 51-7.
- [9] Ruiz-Perez I, Plazaola-Castano J, Rio-Lozano MD. Physical health consequences of intimate partner violence in Spanish women. *Eur J Public Health* 2007 Jan 23.
- [10] Coker AL, Davis KE, Arias I, Desai S, Sanderson M, Brandt HM, et al. Physical and mental health effects of intimate partner violence for men and women. *Am J Prev Med* 2002; 23: 260-8.
- [11] Sundaram V, Helweg-Larsen K, Laursen B, Bjerregaard P. Physical violence, self rated health, and morbidity: is gender significant for victimisation? *J Epidemiol Community Health* 2004; 58: 65-70.
- [12] Magdol L, Moffitt TE, Caspi A, Newman DL, Fagan J, Silva PA. Gender differences in partner violence in a birth cohort of 21-year-olds: bridging the gap between clinical and epidemiological approaches. *J Consult Clin Psychol* 1997; 65: 68-78.
- [13] Coker AL, McKeown RE, Sanderson M, Davis KE, Valois RF, Huebner ES. Severe dating violence and quality of life among south carolina high school students. *Am J Prev Med* 2000; 19: 220-7.
- [14] Guterman NB, Hahm HC, Cameron M. Adolescent victimization and subsequent use of mental health counseling services. *J Adolesc Health* 2002; 30: 336-45.
- [15] Ackard DM, Neumark-Sztainer D. Date violence and date rape among adolescents: associations with disordered eating behaviors and psychological health. *Child Abuse Negl* 2002; 26: 455-73.
- [16] Ackard DM, Neumark-Sztainer D, Hannan P. Dating violence among a nationally representative sample of adolescent girls and boys: associations with behavioral and mental health. *J Gend Specif Med* 2003; 6: 39-48.
- [17] Glass N, Fredland N, Campbell J, Yonas M, Sharps P, Kub J. Adolescent dating violence: prevalence, risk factors, health outcomes, and implications for clinical practice. *J Obstet Gynecol Neonatal Nurs* 2003; 32: 227-38.
- [18] Ackard DM, Eisenberg ME, Neumark-Sztainer D. Long-term impact of adolescent dating violence on the behavioral and psychological health of male and female youth. *J Pediatr* 2007; 151: 476-81.
- [19] Rivera-Rivera L, Allen-Leigh B, Rodriguez-Ortega G, Chavez-Ayala R, Lazcano-Ponce E. Prevalence and correlates of adolescent dating violence: baseline study of a cohort of 7,960 male and female Mexican public school students. *Prev Med* 2007; 44: 477-84.
- [20] Molitor C, Tolman RM. Gender and contextual factors in adolescent dating violence. *Violence Against Women* 1998; 4: 180-94.
- [21] Silverman JG, Raj A, Clements K. Dating violence and associated sexual risk and pregnancy among adolescent girls in the United States. *Pediatrics* 2004; 114: e220-5.
- [22] Roberts TA, Auinger P, Klein JD. Intimate partner abuse and the reproductive health of sexually active female adolescents. *J Adolesc Health* 2005; 36: 380-5.
- [23] Olshen E, McVeigh KH, Wunsch-Hitzig RA, Rickert VI. Dating violence, sexual assault, and suicide attempts among urban teenagers. *Arch Pediatr Adolesc Med* 2007; 161: 539-45.
- [24] Turner HA, Finkelhor D, Ormrod R. The effect of lifetime victimization on the mental health of children and adolescents. *Soc Sci Med* 2006; 62: 13-27.
- [25] Goldberg DP, Hillier VF. A scaled version of the General Health Questionnaire. *Psychol Med* 1979; 9: 139-45.
- [26] McDowell I, Newell C. *Measuring Health. A Guide to Rating Scales and Questionnaires*. 2nd ed. New York: Oxford University Press 1996.
- [27] Babor T, Ramon de la Fuente J, Saunders J, Grant M. The alcohol use disorders identification test: guidelines for use in primary health care. WHO Publication. Geneva: WHO; 1992. Report No.: No.92.4.
- [28] Dawson DA, Grant BF, Stinson FS, Zhou Y. Effectiveness of the derived Alcohol Use Disorders Identification Test (AUDIT-C) in screening for alcohol use disorders and risk drinking in the US general population. *Alcohol Clin Exp Res* 2005; 29: 844-54.
- [29] Cook RL, Chung T, Kelly TM, Clark DB. Alcohol screening in young persons attending a sexually transmitted disease clinic. Comparison of AUDIT, CRAFFT, and CAGE instruments. *J Gen Intern Med* 2005; 20: 1-6.
- [30] Kelly TM, Donovan JE, Cornelius JR, Bukstein OG, Delbridge TR, Kinnane JM. Alcohol use disorder symptoms and risk-taking behavior as predictors of alcohol-related medical events among young adults treated in emergency departments. *Addict Behav* 2005; 30: 1674-89.
- [31] Fillingim RB, Wilkinson CS, Powell T. Self-reported abuse history and pain complaints among young adults. *Clin J Pain* 1999; 15: 85-91.
- [32] Saluja G, Iachan R, Scheidt PC, Overpeck MD, Sun W, Giedd JN. Prevalence of and risk factors for depressive symptoms among young adolescents. *Arch Pediatr Adolesc Med* 2004; 158: 760-5.
- [33] Haavet OR, Straand J, Hjortdahl P, Saugstad OD. Do negative life experiences predict the health-care-seeking of adolescents? A study of 10th-year students in Oslo, Norway. *J Adolesc Health* 2005; 37: 128-34.
- [34] Harned MS. Abused women or abused men? An examination of the context and outcomes of dating violence. *Violence Vict* 2001; 16: 269-85.
- [35] Ashley OS, Foshee VA. Adolescent help-seeking for dating violence: prevalence, sociodemographic correlates, and sources of help. *J Adolesc Health* 2005; 36: 25-31.
- [36] Wijma B, Schei B, Swahnberg K, et al. Emotional, physical, and sexual abuse in patients visiting gynecology clinics: a Nordic cross-sectional study. *Lancet* 2003; 361: 2107-13.
- [37] Howard DE, Wang MQ. Psychosocial factors associated with adolescent boys' reports of dating violence. *Adolescence* 2003; 38(151): 519-33.
- [38] Plichta SB, Abraham C. Violence and gynecologic health in women <50 years old. *Am J Obstet Gynecol* 1996; 174: 903-7.
- [39] Danielsson I, Olofsson N, Gadin KG. Consequences of violence--a public health issue. Strong connection between violence/threat and illness in both women and men. *Lakartidningen* 2005; 102: 938-40, 42.

Received: April 01, 2008

Revised: May 05, 2008

Accepted: December 31, 2008

© Olofsson et al.; licensee Bentham Open.

This is an open access article licensed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/3.0/>), which permits unrestricted, non-commercial use, distribution and reproduction in any medium, provided the work is properly cited.