Contributors to this issue
Caner Fidaner
Nalan Sahin Hodoglugil
Gül Ergör
Belgin Unal
Dilek Aslan
Cengizhan Acikel
Gonul Dinc
Emel Irgil

From the editor

Dear Readers,

In this second electronic issue of the Journal you will find two research reports and two critical reviews. In each issue, we aim to cover various topics of public health from many risk groups. Two of the articles in the current issue deal with the health of women at different ages. The first article is from Gaza-Palestine, and discusses the weight reduction issue among female university students. The other article deals with women at the age of the menopause and their perceptions of the menopause. The article from Gaza shows that weight control is an important concern for female students in Al-Azhar University. Although weight reduction has been considered as one of the preventive measures related to many health problems, this study shows that most of the students practicing weight reduction were of normal weight and that they followed unhealthy methods of weight reduction.

In the other study a total of 830 women, 539 not in the menopause, and 291 in the menopause were investigated. It was found that less than 20% of women categorized the menopause as a positive event; in addition, less than 20% of them had received information about the menopause from medical personnel. The authors conclude that health care professionals should understand women's attitudes regarding the menopause in order to give optimal information and help them to create positive attitudes and healthy perceptions of the menopause

Yardim et al., in their critical review, analyze the existing registry notification forms used at health care facilities and evaluated the corresponding health indicators used by the WHO, OECD and EU. They emphasize the importance of a surveillance system in reducing national and international threats of disease and conclude that indicators which were defined by the international organizations would be best for regulatory purposes.

The last article of this issue deals with the homosexual movement and responsibilities of public health providers in Turkey. In their review, the authors aim to create national health care policies without discrimination regarding homosexuality.

We hope you enjoy this issue of the Turkish Journal of Public Health and we would like to thank all the authors and reviewers who have contributed to this issue of the journal.

Sibel Kalaca
Editor

Perceptions and attitudes toward the menopause: a study from Kayseri

Melis Nacar[a], Zeynep Baykan[b], Fevziye Cetinkaya[c]

Abstract

Objectives: The aim of this study was to determine the perceptions, beliefs and attitudes of Turkish women in Kayseri towards the menopause. **Methods:** This was a descriptive study conducted in Kayseri, Turkey, in 2005. In this study, data were collected by a questionnaire, using a face-to-face interview technique. Study subjects were 830 women between the ages of 35-60 years. For the statistical analysis the chi-square test and logistic regression analysis were used. **Results:** A total of 830 women, 539 not in menopause, and 291 in menopause were investigated. In our study 18.9% of the women categorized the menopause as a positive event, 62.9% as a negative event, and 18.2% expressed no opinion. Age, education, employment, and menopausal status had a statistically significant impact on positive perceptions. A multivariate analysis indicated that age and years of education were important factors for positive perceptions. Symptoms like urine leakage, decrease in libido, muscle or joint pain, and forgetfulness were more commonly reported by the menopausal women. Non-menopausal women more commonly reported "Anxiety". Out of 291 menopausal women, 33.0% said menopause affected the relation with their husband negatively and 35.4 % were unhappy-frightened to experience the menopause. Only 16.6% received information about menopause from medical personnel. **Conclusions:** Health care professionals should understand women's attitudes regarding the menopause, in order to give optimal information and help the women create positive attitudes and healthy perceptions of the menopause. In our study, only 18.9% categorized the menopause as a positive event so that we have to spend more effort to promote a positive attitude to the menopause.

Key words: Attitude; menopause; women

Introduction

The menopause is a transitional developmental period in a women's life. It is a depletion of ovarian function followed by a cessation of menstruation. For middle-aged women, this loss is a critical issue that represents the end of fertility and the onset of the aging process. In Turkey it is estimated that there are over 6 million menopausal women[1]. According to different studies carried out in Turkey the mean age at menopause is about 48 years[2,3]. As life expectation for a Turkish woman is estimated as 74.0 years[4]; a female is expected to survive one-third of her life in the menopause. A variety of symptoms such as mucosal dryness, hot flashes, sweats, and emotional fluctuation accompany the menopause[5]. Symptoms are less common in societies where the menapouse is viewed as a positive rather than a negative event[6]. Previous studies showed that factors such as menstrual status, education, occupation, physical or emotional health, and general symptoms may influence a woman's perceptions and beliefs about the menopause[7,8].

[a,] **Assistant Prof.** Department of Medical Education, Erciyes University School of Medicine, Kayseri, Turkey

[b,] **Assistant Prof** Department of Medical Education, Erciyes University School of Medicine, Kayseri, Turkey

[c] **Prof. Dr.,** Department of Public Health, Erciyes University School of Medicine, Kayseri, Turkey

Corresponding author: Dr. Melis NACAR, Department of Medical Education, Erciyes University School of Medicine, Kayseri, Turkey, mnacar@erciyes.edu.tr

In Turkey studies about the menopause[2,3] are mostly clinical, they usually focus on age at menopause, the factors affecting the age and menopausal symptoms. Studies on the perceptions, beliefs and attitudes towards menopause are very limited.

The aim of this study was to determine the perceptions, beliefs and attitudes of Turkish women in Kayseri towards the menopause.

Material and Methods

Study population and questionnaire

This study was a descriptive study conducted in Kayseri, Turkey, in May 2005. Kayseri is one of the biggest cities in the middle Anatolia region of Turkey with a total population of one million and it is an important commercial and industrial centre.

Of the total population 49% (567,483) were women and 27,5% of these (155,927) were aged 35-60. We calculated the size of our sample as 1013 on the basis that 27,5% of the survey population were women aged 35-60 and based on a significance level of 0.05 (alpha), power= 0.80 and with a false rate of 0.03 (d). The sampling design of the study was a multistage probability sampling. In the first stage of this study, 14 primary health care centers were selected from 40 primary health care centers located in the Kayseri Health Group Area by using a simple random sampling method. In the second stage the primary health care centers were weighted according to their population intensity and women were chosen randomly by a 1/4 systematic sampling method using individual health charts.

In this study 830 women between the ages of 35-60 years were analyzed. One hundered and eighty-three women were excluded from the research because some refused to give information, some were not at home and data was incomplete in some women's questionnaires. The rate of reaching the sample was 81,9%. Data were collected by a questionnaire using the face-to-face interview technique. Final year medical students were trained by researchers and they performed interviews at the homes of the ıwomen. The questionnaire was designed according to previous studies about the menopause and it consisted of four sections: (1) Socio-demographic data: including present age, menopausal status, age at menopause, marital status, level of education, employment status and residency; (2) Perceptions and beliefs about the menopause (women were asked to give their views about some statements about the menopause), including identifying the definition (as the cessation of menses for more than 12 months); (3): Beliefs about acute menopausal symptoms (Symptoms were read to the women and they answered); and (4) Sources of information about the menopause and attitudes of menopausal women towards the menopause.

Menopausal status was defined according to the WHO definition[9]. Women who had experienced amenorrhea for 12 or more consecutive months were considered to be in natural menopause[9]. Women with a history of surgical removal of both ovaries (with or without hysterectomy) were considered to be in surgical menopause. A woman who was either in natural or surgical menopause was categorized as the menopausal group and the other women were categorized as non-menopausal group. We asked the question "What does menopause mean to you" in order to determine the perceptions of women about the menopause. If this question was answered "menopause is a good event" it was considered as being a positive attitude. If it was answered "menopause is a bad event" it was considered as being a negative attitude.

Data Analysis

Data were shown as means ± standard deviations (sd), medians and percentages. The Pearson and Fisher Chi- square tests were used to analyze the association between sociodemographic factors and positive perceptions toward the menopause. In the logistic analysis two groups were formed. One of the groups was positives and the other was nonpositives. Women who had

neither positive nor negative attitudes, were evaluated as a nonpositive group. Multivariate logistic regression analysis was used to identify the factors influencing perceptions about the menopause. Age and years of education completed were treated as continuous variables menstrual status, employment and marital status were taken as categorized independent variables.

A p value of <0.05 was considered as statistically significant. All analyses were performed with the statistical package for social science (SPSS) version 13.0 (Chicago, Illinois).

Results

A total of, 830 women between the ages of 35 and 60 were interviewed. The mean age of the study group was 45.0±8.0 years. Table 1 shows the characteristics of the study population.

Table 1. Characteristics of the study population ($\bar{x}$ ± sd)

	Total # of women (n=830)	Menopausal women (n=291)	Non-menopausal women (n=539)	p
Age	45.0±8.0	53.1±5.6	40.6±5.1	0.0001
Education years	4.4±3.5	3.0±3.3	5.2±3.4	0.0001
Age of menarche	13.6±1.5	13.7±1.6	13.5±1.4	0.107
Parity	4.2±2.4	5.0±2.6	3.8±2.1	0.0001
Age at first parity	19.8±3.7	19.4±3.7	20.0±3.6	0.019
Age at menopause (median 46)		45.0±6.1		
Age at natural menopause (median 47)		46.3±5.1		
Years since menopause		8.1±6.4		
Residency				
Urban	560	196 (%35.0)	364 (%65.0)	0.953
Rural	270	95 (%35.2)	175 (%64.8)	

Of the total of 830 women, 539 (64.9%) were in nonmenopause, and 291 (31.1%) were in menopause (77.2% in natural, and 22.8% in surgical menopause). Out of 830 women 52.8% were in the 35-44 age group, 30.1% in 45-54, and 17.1% were in 55 and over age group. 33.6% of women went to school for 0-4 years; 51.1% went for 5-7 years, and 15.3% went for 8 years or more. The majority of women were married (88.3%), 95.9% were housewives, 69.2% never smoked, and 67.5% were living in an urban area. There was a significant difference between menopausal and non-menopausal women in terms of age, education years, parity, and age at first parity. Non-menopausal women were younger, more educated, had a younger age of menarge, had lower parity and had their first parity later than menopausal women.

In our study, 640 women (77.1%) had correctly defined the term “menopause”. This rate was 78.8% in nonmenopausal and 73.9 % in menopausal women. There was a significant difference between knowing the

correct definition and educational level (χ^2=71.63, p<0.001). Knowing the correct definition increased with educational level. Of women with less than five years of education 61.2% knew the correct definition, for those with 5-7 years this figure was 81.7% and for those with more than 7 years the figure was 95.6%. Also there was a significant difference for knowing the correct definition in relation to residency (rural-urban) (χ^2=12.68, p<0.001). The rate of knowing the correct definition was 80.7% in urban and 69.6% in rural areas.

In our study 62.9% of the women categorized menopause as a negative event, 18.9% as a positive event and 18.2% expressed no opinion.
Table 2 shows the association between a positive perception toward menopause and demographic factors.

Table 2. The association between demographic factors and a positive perception toward the menopause

Demographic factors		**Positive Perception**	**%**	**P**
	n	**n**		
Total	830	157	**18.9**	
Age groups				
35-44	438	70	16.6	**0.003**
45-54	250	46	18.4	
55 and over	142	41	**28.9**	
Educational level (year)				
0-4	279	45	16.1	**0.005**
5-7	424	75	17.7	
8 and over	127	37	**29.1**	
Marital status				
Married	733	140	19.1	0.784
Divorce/widow/single	97	17	17.5	
Employment status				
Non-employed (Housewife)	796	142	17.8	**0.001**
Employed	34	15	**44.1**	
Residency				
Urban	560	104	18.6	0.706
Rural	270	53	19.6	
Menopausal status				
Non-menopause	539	89	16.5	**0.02**
Menopause	291	68	**23.4**	
Attending ~~to~~ a menopause clinic				
Yes	110	28	22.5	0.568
No	181	40	22.1	

The association between age groups, employment, education, menopausal status and positive perceptions were found to be significant. 23.4% of the menopausal women, 44.1% of the employed women and 29.1% of the high educational level women reported positive perceptions. Positive perceptions toward the menopause was

statistically high in those who were 55 and over, in women whose educational at level 8 and over, in women who were employed, and in women who were in the menopause.

Results of the questions on beliefs about the menopause are given in Table 3.

Table 3. Beliefs about the menopause (%)

Believes	Total women (n=830)	Menopausal women (n=291)	Non-menopausal women (n=539)
It makes women irritable	87.0	83.2	89.1
It should be treated	77.2	70.1	81.1
It causes osteoporosis	75.4	77.0	74.6
It affects health negatively	74.5	74.2	74.6
It is a sign of ageing	73.1	72.5	73.5
It is a normal event	67.6	67.0	67.9
It causes weight gain	63.0	60.1	64.6
It causes cardiovascular problems	41.0	43.0	39.9
It ends sexual relations	23.7	25.1	23.0

Results of the questions on beliefs about symptoms in the menopause are given in Table 4. Hot flashes, anxiety and Bad temper/ irritability were the first three symptoms stated by the women.

Table 4. Beliefs about symptoms in the menopause (%)

Symptoms	Total women (n=830)	Menopausal women (n=291)	Non-menopausal women (n=539)
Hot flashes	95.7	94.5	96.3
Anxiety	93.3	90.7	94.6
Bad temper/ irritability	91.7	90.0	92.6
Sweating	91.2	90.4	91.7
Palpitation	82.5	81.1	83.3
Insomnia	76.7	78.7	75.7
Forgetfulness	65.5	73.2	61.4
Urine leakage	44.8	51.9	41.0
Decrease in libido	40.8	52.2	34.7
Muscle or/and joint pain	74.7	79.4	72.2

The factors influencing perceptions toward the menopause was evaluated by univariate and multivariate logistic regression analysis (Table 5). In the multivariate analysis age and education years of education were found statistically important. Multivariate analysis suggested that perceptions became more positive toward menapouse as age and years of education increased.

Table 5. Variables influencing positive perceptions toward the menopause

Variables		Multivariate Logistic Regression			
	n	**B**	**OR**	**95 % Cl**	**p**
Age (years)	830	0.052	1.053	0.017-1.091	**0.004**
Education (years)	830	0.095	1.100	1.038-1.166	**0.001**
Menopausal status					
Non-menopause	539				
Menopause	291	0.102	1.107	0.635-1.931	0.719
Employment status					
Non-employed **(**Housewife)	796				
Employed	34	0.803	2.233	0.992-5.023	0.052
Marital status					
Married	733				
Divorce/widow/single	97	0.350	1.419	0.792-2.542	0.239
Residency					
Urban	590				
Rural	270	0.219	1.245	0.847-1.830	0.264

OR: Odds ratio Cl: Confidence interval

Knowledge about the menopause was commonly learnt from friends and family members (31.6%), other common sources of information were reading material, such as newspapers, magazines and watching TV (31.0%). Only 16.6% of the women got information about the menopause from medical personnel

Of 291 menopausal women, 47.4% were indifferent to the experience of the menopause, 35.4 % were unhappy-frightened and 5.2 % were happy. Among menopausal women 63.6% said menopause had no influence on the relation with their husband, 33.0% said it affected their relation negatively whereas 3.3% said positively. 37.8% consulted a physician in relation to the menopause. A systematic gynecologic examination was carried out in 33.0% menopausal women. Of the menopausal women who agreed with the statement "women should consult to a doctor" only 42.8% attended/consulted a physician whereas 57.2% did not.

Discussion

Women need to be more educated to be able to make informed decisions about their own health[9]. Knowledge of the correct definition of the menopause has varied in different studies conducted in different countries. In Taiwan[6] this percentage was 53%, in Equador[10] it was 60.2%, and in different regions of Pakistan[11] it was 74.3% and 58%[12]. In our population-based study, 77.1% defined the menopause correctly, which is higher than these countries but lower than the other studies conducted in Turkey. These differences are possibly related with the level of education.

We found women in urban areas define the menopause more correctly than those in rural areas, and this also depended on educational levels.

Menopause is an important event in a woman's life. It causes a wide array of clinical signs and symptoms like hot flushes,

sweating, palpitations, dizziness, anxiety, irritability, and insomnia[1,5,13]. Women learn to respond to these symptoms in a culturally dependent way[6,14,15]. Menopausal symptoms have been found to be less common in societies where the menopause is viewed as a positive rather than a negative event[6]. A low prevalence of symptoms related to the menopause has been reported by southeastern and eastern Asian studies[6,16,17] while a high prevalence has been found in Middle Eastern and western studies[18-20]. A perception of the menopause as a positive event varies in different countries between 60%-90%[10,21-23]. In our study, 18.9% of all the women, 16.5% of non-menopausal women and 23.4% of the menopausal women categorized the menopause as a positive event. This low positive perception may be the result of thinking of the menopause as the end of their feminity.

In our study the two groups of menopausal and non-menopausal women had differenet demographic and fertility characteristics, which is mainly due to a cohort effect. It must be noted that, especially the difference between educational levels, may affect the knowledge and beliefs about the menopause. In this study one fourth of the study population thought that the menopause ends sexual relations, and one third of them said that their relationships with their husbands were affected in a negative way; that is a high percantage. Also, in our study, most of the women cited negative opinions related to the menopause (as a sign of aging, one that affects health negatively and causes weight gain) (Table 3). Perceiving the menopause as a normal event in our study was also less than for other earlier studies[10,14,24,25] but it was similar to a study conducted in Germany[14] on Turkish immigrant patients. Results of our study indicated that more of the menopausal women felt natural, or unhappy-frightened in contrast to other studies[11,15,25]. This study is important because, there are few reports to define the perceptions of the menopause among Turkish women.

Several factors have been reported to influence women's perceptions and attitudes toward the menopause [7,8,10,22]. In many traditional societies all over the world women gain respect and power with age, which leads a positive connotation ~~to~~ of aging and the menopause[26]. We also found an association between age and a positive perception (Table 5). Earlier studies[7,8,27] reported that menopausal women demonstrated more positive attitudes toward the menopause as in our study, indicating that once women have gone through it they find it to be less troubling than they anticipated earlier in life. There is disagreement about the effects of rural versus urban living on the menopausal experience. Some studies suggest that rural women have a more difficult time[28,29] with the menopause whereas others suggest that urban women have more difficult time[30,31]. We did not find any difference. Earlier reports have indicated that well-educated women had a more positive attitude regardless of their eastern or western culture[8,32,33]. Our study supported this hypothesis (Table 2).

In today's society, knowledge is power and women with accurate information and training about the ~~in~~ menopause can be expected to have better quality of life. According to our results, knowledge about the menopause has been received mainly from family members and friends and from media sources (books, newspapers, and television). Information obtained from medical personnel was low (16.6%). This result was similar to those of studies conducted in countries like Taiwan[6] (18%), Pakistan[12] (14%) and Egypt[23] 17%, but less than Equador[10] (65.9%), North America[22] (49.0%) or another study from Turkey[34].

Women consulting a physician in this specific period can easily deal with the problems related with the menopause. Also early detection of menopausal risks can be managed. In a study of Swedish women[35], all the women were well informed about the fact that they had to visit gynecologists or physicians, compared to 86.9% in our study.

In a study conducted in Karachi, Pakistan[12] 82% of the women had consulted a physician after the menopause. The rate of systematic gynecologic examination of menopausal women in France was 67.6%, in Germany 43.8%(36); we found only one third of menopausal women went to physician and had a systematic gynecologic examination. In our country, women have the knowledge, but do not put into practice in their behaviour yet.

Conclusion: Menopause is an important event in a woman's life. Women with accurate information about the menopause can be able to manage their problems better. Health care proffessionals should understand women's attitudes regarding the menopause in order to give optimal information and help to create positive attitudes and healthy perceptions of the menopause. In our study 62.9% categorized the menopause as a negative event so that we have to spend more effort to promote a positive attitude to the menopause.

References

1. Algün E. Menopoz. *Turkiye Klinikleri J Endocrin* 2003;1(2): 85-9.

2. Carda SN, Bilge ŞA, Öztürk TN, Oya G, Ece Ö, Hamiyet B. The menopausal age, related factors and climacteric symtoms in Turkish women. *Maturitas* 1998; 30:37-40.

3. Biri A, Bakar C, Maral I, Karabacak O, Bumin MA. Women with and without menopause over age of 40 in Turkey: consequences and treatment options. *Maturitas*. 2005;50(3):167-76.

4. Taner MZ. Estrogen and Menopause: The Effects of Estrogen Replacement Therapy. *Turkiye Klinikleri J Med Sci* 2008;28(6 Suppl 1):S 88-97.

5. Durmuşoğlu F, Yoldemir T. Cardiovascular Disease and Menopause. *Turkiye Klinikleri J Gynecol Obst-Special Topics* 2008; 1(3): 10-2.

6. Pan HA, Wu MH, Hsu CC, Yao BL, Huang KE. The perception of menopause among women in Taiwan. *Maturitas*. 2002; 41(4): 269-74.

7. Cheng MH, Wang SJ, Wang PH, Fuh JL. Attitudes toward menopause among middle-aged women: a community survey in an island of Taiwan. *Maturitas.* 2005;52(3-4):348-55.

8. Avis NE, McKinlay SM. .A longitudinal analysis of women's attitudes toward the menopause: results from the Massachusetts Women's Health Study. *Maturitas*. 1991; 13(1):65-79.

9. Şentürk LM. Clınıcal recommendatıons and guıdelınes of menopause socıetıes on postmenopausal hormonal therapy. *Turkiye Klinikleri J Surg Med Sci* 2006;2(31): 29-33.

10. Leon P, Chedraui P, Hidalgo L, Ortiz F. Perceptions and attitudes toward the menopause among middle aged women from Guayaquil, Ecuador. *Maturitas.* 2007;57(3): 233-8.

11. Mazhar SB, Gul-e-Erum. Knowledge and attitude of older women towards menopause. *J Coll Physicians Surg Pak*. 2003;13(11):621-4.

12. Baig LA, Karim SA. Age at menopause, and knowledge of and attitudes to menopause, of women in Karachi, Pakistan. *J Br Menopause Soc*. 2006;12(2):71-4.

13. Chedraui P, Aguirre W, Hidalgo L, Fayad L. Assessing menopausal symptoms among healthy middle aged women with the Menopause Rating Scale. *Maturitas*. 2007 ;57(3):271-8.

14. David M, Borde T, Kentenich H. Female menopause--comparison of knowledge and opinion in German and Turkish-born women. *Zentralbl Gynakol*. 2001;123(1):3-9.

15. Adekunle AO, Fawole AO, Okunlola MA. Perceptions and attitudes of Nigerian women about the menopause. *J Obstet Gynaecol*. 2000; 20(5):525-9.

16. Chim H, Tan BH, Ang CC, Chew EM, Chong YS, Saw SM. The prevalence of menopausal symptoms in a community in Singapore. *Maturitas*. 2002;41(4):275-82.

17. Lock M. Ambiguities of aging: Japanese experience and perceptions of menopause. *Cult Med Psychiatry*. 1986;10(1):23-46.

18. Rizk DE, Bener A, Ezimokhai M, Hassan MY, Micallef R. The age and symptomatology of natural menopause among United Arab Emirates women. *Maturitas.* 1998 ;29(3):197-202.

19. Porter M, Penney GC, Russell D, Russell E, Templeton A. A population based survey of women's experience of the menopause. *Br J Obstet Gynaecol.* 1996;103(10):1025-8.

20. Oldenhave A, Jaszmann LJ, Haspels AA, Everaerd WT. Impact of climacteric on well-being. A survey based on 5213 women 39 to 60 years old. *Am J Obstet Gynecol*. 1993;168(1):772-80.

21. Kowalcek I, Rotte D, Banz C, Diedrich K. Women's attitude and perceptions towards menopause in different cultures. Cross-cultural and intra-cultural comparison of pre-menopausal and post-menopausal women in Germany and in Papua New Guinea. *Maturitas*. 2005;51(3):227-35.

22. Kaufert P, Boggs PP, Ettinger B, Woods NF, Utian WH. Women and menopause: beliefs, attitudes, and behaviors. The North American Menopause Society 1997 Menopause Survey. *Menopause*. 1998; 5(4):197-202.

23. Sallam H, Galal AF, Rashed A. Menopause in Egypt: past and present perspectives. *Climacteric*. 2006; 9(6):421-9.

24. Lindh-Astrand L, Brynhildsen J, Hoffmann M, Liffner S, Hammar M. Attitudes towards the menopause and hormone therapy over the turn of the century. *Maturitas.* 2007;56(1):12-20.

25. Sethi K, Pitkin J. British-Asian women's views on and attitudes towards menopause and hormone replacement therapy. *Climacteric.* 2000; 3(4):248-53.

26. Rasmussen SJ. Female sexuality, social reproduction, and the politics of medical intervention in Niger: Kel Ewey Tuareg perspectives. *Cult Med Psychiatry*. 1994;18(4):433-62.

27. Groeneveld FP, Bareman FP, Barentsen R, Dokter HJ, Drogendijk AC, Hoes AW. Relationships between attitude towards menopause, well-being and medical attention among women aged 45-60 years. *Maturitas*. 1993;17(2):77-88.

28. Discigil G, Gemalmaz A, Tekin N, Basak O. Profile of menopausal women in west Anatolian rural region sample. *Maturitas*. 2006; 55(3):247-54.

29. Boulet MJ, Oddens BJ, Lehert P, Vemer HM, Visser A. Climacteric and menopause in seven South-east Asian countries. *Maturitas*. 1994;19(3):157-76.

30. Sharma VK, Saxena MS. Climacteric symptoms: a study in the Indian context. *Maturitas*. 1981;3(1):11-20.

31. Wasti S, Robinson SC, Akhtar Y, Khan S, Badaruddin N. Characteristics of menopause in three socioeconomic urban groups in Karachi, Pakistan. *Maturitas*. 1993;16(1):61-9.

32. Chen YL, Voda AM, Mansfield PK. Chinese midlife women's perceptions and attitudes about menopause. *Menopause*. 1998; 5(1):28-34.

33. Garcia Padilla FM, Lopez Santos V, Toronjo Gomez AM, Toscano Marquez T, Contreras Martin A. Evaluation of knowledge about climacteric in Andalusian women. *Aten Primaria*. 2000; 26(7): 476-81.

34. Dişçigil G, Gemalmaz A, Tekin N, Söylemez A, Çetin G. Perception of menopause in a group of women living in Aydın and Muğla, Turkey. *Turkiye Klinikleri J Med Sci* 2008; 28: 494-9.

35. Bertero C. What do women think about menopause? A qualitative study of women's expectations, apprehensions and knowledge about the climacteric period. *Int Nurs Rev*. 2003;50(2):109-18.

36. Barlow DH, Samsioe G, van Geelen JM. A study of European womens' experience of the problems of urogenital ageing and its management. *Maturitas*. 1997; 27(3):239-47.

Original Research Article

Weight Reduction Perception and Practice among Female Students in Al-Azhar University-Gaza, Palestine

Basil J. Kanoa[a], Osama S. Abu-Nada[b], Mazen A. El-Sakka[c], Moain Ahmed Kariri[d], Adnan I. Al-Hindi[e], Heba K. Jawada[f]

Abstract

Objectives: The present study aimed to determine the frequency of weight reduction perception. **Methods:** A sample of 467 female students from Al-Azhar University in the Gaza Strip was selected on a convenience basis. Information obtained from the participants included: age, marital status, place of residence, employment status, health status, methods of weight reduction, sources of information about weight control, and current physical activities. **Results:** The present study found that 38.8% of female students had practiced weight reduction. The most prevailing attitudes for reducing weight described by the students was sports with 83.3%, followed by exclusion of some principal meals or principal nutrients (57.8%). It was found that 38.5% of the students did not practice any physical exercise. An inverse association was also present between the satisfaction about body weight and the practice of weight reduction. **Conclusion and recommendation:** It is concluded that the female students followed unhealthy methods of weight reduction. It is recommended that great efforts be made to spread the awareness of healthy methods of weight reduction among females.

Key words: Weight, reduction, satisfaction, adolescents, prevalence, students

Introduction

Weight reduction is widespread among adolescents and young adults. It is not restricted to overweight people who suffer from clear adverse medical consequences, but it is also extended to include normal or low weight people who may wish to lose weight for cultural, social, or psychological reasons. The methods used for weight reduction are classified as either accepted, such as a diet prescribed by specialists and certain types of fitness exercises, or risky, such as diet pills, laxatives and vomiting[1].

[a,b]Al- Azhar University, Gaza St
[c]AL-Azhar University, Gaza Strip-Faculty of Pharmacy-Head of Pharmacongnosy Department
[d]Director of Health Education's-MPH, Ministry
[e]Head of Biology Department, Faculty of Science, The Islamic University of Gaza, Gaza Strip
[f]Al-Azhar University, Gaza Strip
Corresponding author: Adnan Ibrahim Al-Hindi, PhD, Associate professor.The Islamic University of Gaza Faculty of Science Department of Biology.P.O. Box. 108, Gaza, Palestine. Email: ahindi@iugaza.edu.ps

For example, in Minneapolis the prevalence of extreme weight control behaviors (self-induced vomiting, and use of laxatives, diet pills, or diuretics) increased from 14.5% to 23.9% among female participants during a 5-year period in the project of EAT (Eating Among Teens)[2]. A higher prevalence of unhealthy weight control behaviors was evident among overweight youths and there is need to provide consistent messages about healthy weight loss methods[3]. A multitude of studies have been done addressing the issues of weight reduction and related aspects such as gender, age, socioeconomic status, and living outside one's country. Moreover, studies have related weight reduction to other health-linked behavior such as smoking and drinking alcohol[1].

Palestinian youth have lived through rapid globalization that prompted changes in their behaviors and attitudes. Additionally, the mass media, which raise issues regarding beauty, fitness and ideal body form, present multiple weight reducing methods. The issue of appearance has become a social necessity. In Palestine, there are no available data about weight control programs among female students in the Gaza strip.

This study aimed to determine:

(1) The frequency of female students who practiced weight reduction,

(2) To study the female student's weight reduction perception and behavior.

(3) The association between weight reduction practices and some nutritional and demographic factors

Subjects and Methods

In the Gaza strip 45.4 % of the students enrolled in higher education are female. The registered students in all universities in the Gaza strip are distributed nearly equally. The total registered students in Al-Azhar university was 12720, and the female students represented about 42% out of the total[4].The present study was descriptive in nature and conducted in the spring semester of the academic year 2007-2008 including only the female students of Al-Azhar University. A total of 467 students from scientific and other colleges were selected using a convenience method which is a one way of non-probability technique.

All female students registered in Al-Azhar University who were available at the time of study and volunteered to participate were included in the study. Pregnant students and physically disabled student were excluded from the study due to difficulties in anthropometry measurements.

Participants completed self-administered, semi-structured and anonymous questionnaires that included the following determinants: socio-demographic characteristics like age, marital status, place of residence (Northern, Gaza or Southern governorate in the Gaza strip), employment status (whether the student had a job besides studying), health status, and parents' education; method of weight reduction, source of information about weight reduction and whether she practiced physical activity or not. In addition, a key question was included that asked whether the student practiced weight reduction or not. The students were further asked about beliefs about the best methods used for weight reduction and the effects of TV actresses, advertisements or fashions. The questionnaire was reviewed by two nutritional experts, and then pilot tested. The pilot testing was done with 10 participants who were from the female students of Al-Azhar University. The ten completed piloted questionnaires were not considered in our sample. A second measurement tool was to record the weight and height of the students.

Measurement of the weight of the female students was not easy and was done with the help of female student assistants.

A stadiometer and an electronic weighing scale (Seca type) were used for measuring height and weight nearest to 0.5cm and 0.1kg respectively on a special sheet. The body Mass Index (BMI) was calculated on the basis of these measures. According to the BMI categorization: underweight was a BMI less than 18.5, normal a BMI between 18.5 and 24.9, overweight a BMI between 25 and 29.9, and obese a BMI equal to or greater than 30[5]. For the statistical analysis, the Statistical Package for Social Sciences (SPSS) version 13 was used.

Results

The total sample selected was 480 students distributed among the colleges of the Al-Azhar University with 201 (43%) from the scientific colleges and 266 (57%) from other colleges. The average age was 20.56 (sd=1.84) years. In the present study, students who live in Gaza city, which is the most modern city in the Gaza strip, was 264 (56.5%) of the study sample and students registered in the scientific colleges were 201 (43%). According to BMI categorization the frequencies of underweight, normal, overweight, and obese students were 4.3%, 74.9%, 17.3% and 3.4%, respectively. The most prevailing attitudes for reducing weight described by the students were sports (83.3%), followed by skipping some principal meals or principal nutrients (57.8%). Also, the omitted served meals were breakfast, and dinner (evening meal). The major food items excluded were meat, rice, potato since they are perceived as a source of fatness and obesity. The students did not indicate whether they replaced nutrients to compensate the missed two meals or not.

In the present study, 38.5% of the students did not practice physical exercise, whereas 61.5% did. The most prevalent type of physical activity was walking. Mass media present the major source of information for weight reduction (70.9%). Table (1) shows some of the participants' characteristics**.**

Table1: Participant's characteristics (n=467)

	Students	
Demographic characteristics	**n**	**%**
Students lives in owned house	302	64.7
Students lives in apartment	125	26.8
Students live in Villa	15	
Students lives in aspastosis	25	3.2
		5.4
Students of scientific college	201	43.0
Students of other colleges	266	
		57.0
Marital status		
Single	404	86.5
Married	63	13.5
Residence of the Students		
Gaza city		
North governorate	264	56.5
South governorate	64	13.7
Middle governorate	63	13.5
	76	16.3

In the present study, 277 (96.9%) of those who did not practice weight reduction thought that they might face community obstacles if they did? (Table 2).

Table 2: Some associated variables, attitudes, source of information (n=467)

Variable	Female students Number	%
Body Mass Index		
- Underweight	20	4.3
- Normal	350	74.9
- Overweight	81	17.3
- Obese	16	3.4
-Students practicing physical activity	287	61.5
-Students not practicing physical activity	180	38.5
Attitudes regarding the best weight reduction methods		
Sports		
-Yes		
-No	389	83.3
- Fasting	78	16.7
-Yes		
-No	114	24.4
- Neglecting some meals or nutrients	353	75.6
-Yes		
-No	270	57.8
	206	43.2
-Students practicing weight reduction and thinking that they will face community obstacles		
-Students do not practicing weight reduction and thinking they might face community obstacles	124	68.5
	277	96.9
Source of information (about weight control)		
- Health providers (physicians or pharmacists)		
-Yes	153	32.8
-No	314	67.2
- Family and Friends		
-Yes	185	39.6
-No	282	60.4
- Mass media and Internet		
-Yes	331	70.9
-No	136	29.1

Table 3 presents the socio-demographic characteristics of the 181 students (38.8% of the total) practicing weight reduction. Of these 36.5% were overweight or obese at the time weights were measured, significantly higher than for those who did not practice weight reduction ($p < 0.05$; Table 4).

Table 3 The relationship between practicing weight reduction and socio-demographic characteristics of students in AL-Azhar University, Gaza (n=467)

	Students practicing weight reduction				
	Yes n=181 (38.8%)		**NO n= 286 (61.2%)**		
	n	%	n	%	P-value
Family income					0.96
Less than 1000 NIS	47	26	68	23.8	
1001-2000 NIS	55	30.4	91	31.8	
2001-3000 NIS	42	23.2	67	23.4	
More than 3000 NIS	37	20.4	60	21	
Marital Status					0.58
Single	155	85.6	248	86.7	
Engaged/Married	26	14.4	38	13.3	
Mother's education					0.69
Primary	7	3.9	8	2.8	
Elementary	17	9.4	28	9.8	
Secondary	90	49.7	156	54.5	
University	67	37	94	32.9	
Father's education					0.42
Primary	9	5	9	3.1	
Elementary	23	12.7	27	9.4	
Secondary	50	27.6	92	32.2	
University	99	54.7	158	55.2	
Residency					0.49
Northern Governorate	23	12.7	41	14.3	
Gaza city	110	60.8	154	53.8	
Middle Governorate	25	13.8	54	17.8	
Southern Governorate	23	12.7	40	14	
Faculty					0.58
Scientific colleges	75	41.5	126	44.1	
Non scientific colleges	106	58.5	160	55.9	
Number of family members					0.78
Five and less	32	17.7	44	15.4	
From six to ten	121	66.9	199	69.6	
More than ten	28	15.5	73	15	

NIS=New Israeli Shekel, $p<0.05$ =significant

A statistically significant association was also present between the student's satisfaction with/acceptance of their body weight and the practice of weight reduction. Thus 82.5% of students (236 students) who did not practice weight reduction were satisfied about their body weight.

In the present study, 90.2% of students who did not practice weight reduction thought that their body was normal or low. Approximately 73% of the students practicing weight reduction were highly influenced by an actress on TV ($p<0.05$). No statistical association was found regarding the practice of weight reduction and the effects of advertisements or fashion interests (Table 4).

Table 4. The relationship between practicing weight reduction and the body mass index, satisfaction about the body weight, body image, interests in advertisements and fashions (n=467)

	Students practicing weight reduction				
	Yes n=181 (38.8%)		No n= 286 (61.2%)		
Variable	**n**	**%**	**n**	**%**	**P-value**
Body mass index					
Underweight	1	0.6	40	14	
Normal weight	114	63	222	77.6	
Over weight	55	30.4	21	7.3	
Obese	11	6.1	3	1.04	0.001
Satisfaction about weight					
Satisfy	91	50.3	236	82.5	
Non satisfy	90	49.7	50	17.5	0.001
Body image					
Low weight	1	0.6	52	18.2	
Normal weight	91	50.3	206	72.0	
Overweight and obese	89	49.2	28	9.8	0.001
Effect of T.V. actresses					
Effect	132	72.9	176	61.5	
No effect	49	27.1	110	38.5	0.01
Advertisement effects					
Effect	79	43.6	116	40.6	
No effect	102	56.4	170	59.4	0.51
Interests in Fashions					
Interested	140	77.3	227	79.4	
Not interested	41	22.6	59	20.6	0.34

Discussion

The present study was conducted among female students of Al-Azhar University in the Gaza strip. Of the students 56.5% were from Gaza city and 43.5% were from other governorates which represent different socio-demographic categories of female students. However, the present study is based on a convenience sample and it is not representative for all female students of Al-Azhar University.

In this study, almost 1/5 of the students were overweight and obese. This might represent future health problems of the students, especially regarding cardiovascular diseases (CVD) and diabetes mellitus (DM)[6]. Many negative attitudes regarding unhealthy weight control practices were observed among the students. In addition, 24.4% and 57.8% of the students thought of fasting or neglecting some principal meals or principal nutrients as the best method for weight reduction respectively. A major concern was that such methods put the young adults at increased risk of inadequate nutritional intake and higher levels of fatigue, electrolyte disturbances, cardiac dysrhythmias, psychiatric morbidity and even sudden cardiac death[7-9].

Similar harmful weight reduction practices but in a different form were seen in the USA where it was reported that 13% of the subjects resorted to vomiting and 12.7% used pills[10]. In this study, 70.9% of the students believed that the internet and mass media ~~is~~ provide the major source of information and this reflects the influence of the media in shaping the behavior of female students in the Gaza strip. The present study showed that 38.5% of the sample did not practice physical activity, while the most prevalent method of physical activity was walking and this is not always for weight reduction but as a part of the activity of daily living (ADL) or for other health reasons. The result of this study was matched with young people in New Zealand were 38% were considered physically inactive[11]. Physical inactivity may lead to various health problems in the future. The results of this study showed that the frequency of female students in Al-Azhar University practicing weight reduction was 38.8%. The proportion of university students practicing weight reduction in this study was higher than that in Lebanon and Finland (30%, and 20.8% respectively); and matched that of the females in the United States (38%)[12].

The present study also showed that most of those in the group practicing weight reduction were of normal weight, with a prevalence of 63%. This indicates the following points: whereas there are positive points regarding the attitudes towards achieving optimal weight and health states, there are also (negative) feelings of vulnerability (and) (about) future health problems related to weight gains. The students lacked sufficient information, did not monitor their weight regularly/periodically, and suffered a fear that obesity would lead to future negative social or health consequences. The results of the study showed that weight reduction was not associated with socio-demographic characteristics of students and this reflects that weight control practices represent general values for all students and are not associated with socio-demographic varieties, which is in contrast with students from Lebanon universities. on university students. In the present study, 68.5% of the students who practiced weight reduction programs thought that they might face community obstacles while 97.2% of those who did not practice weight

reduction also thought they might face community obstacles and this reflects negative ideas or attitudes which may force them to refuse weight control programs. Only 91(50.3%) of the female students who practiced weight reduction were satisfied with their body weight and 236 (82.5%) of the female students who did not practice weight reduction were also satisfied with their body weight (p=0.001) reflecting positive attitudes towards their image.

Conclusions and Recommendations

Weight control was an important concern of female students in Al-Azhar University. Dangerous and harmful weight reduction behaviors like fasting, exclusion of principal nutrients or meals were common among female students in the Gaza strip A higher percentage of the study sample was not practicing any physical activity.

Further studies with both qualitative and quantitative surveys are needed for better understanding of the reasons for these behaviors.

References

1. Tamim, H, Dumit N, Terro A, Al-Hourany R, Sinno D, Seif F, *et al* Weight Control Measures among University Students in a Developing Country: A Cultural Association or a Risk Behavior *J Am Coll Nutr* 2004; 23 (5):391-396.

2. Neumark-Sztainer D, Eisenberg ME, Jayne A, Story FM and Larson NI. Family Meals and Disordered Eating in Adolescents" Arch *Pediatr Adolesc Med* 2008; 162(1):17-22.

3. Boutelle K, Neumark-Sztainer D, Story M and Resnick M. Weight Control Behavior among Obese, Overweight, and Nonoverweight Adolescents. *J Pediatr Psychol* 2002; 27 (6): 531-540.

4. Ministry of higher education. Palestinian national authority, Annual report of higher education institutes. 2007.

5. WHO. Obesity: preventing and managing the global epidemic. Report of a WHO Consultation. WHO Technical Report Series 894. Geneva: World Health Organization 2000.

6. Dirk De B, Guy De B, Dennis C, Ulrich K, Michèle M, Erika Ö *et al* .Overweight and obesity in patients with established coronary heart disease: Are we meeting the challenge? *Europ Heart J* 2004; 25(2):121-128.

7. Daee A, Robinson P, Lawson M, Turpin J, Gregory B and Tobias J. Psychologic and physiologic effects of dieting in adolescents. *South Med J 2002;* 95:1032 –1041.

8. Story M, Neumark-Sztainer D, Sherwood N, Stang J and Murray D. Dieting status and its relationship to eating and physical activity behaviors in a representative sample of US adolescents. *J Am Diet Assoc* 1998; 98:1127 –1135.

9. Roberts SJ, Mc Guiness PJ and Maxwell SM. Dieting behavior among 11–15-year old girls in Merseyside and the Northwest of England. *J Adol Health* 1999; 25:62 –67.

10. Krowchuck DP, Kreiter SR, Woods CR, Sinal S, and DuRant RH. Problem dieting behaviors among young

adolescents. *Arch Pediatr Adolesc Med* 1998; 152:884 –888.

11. Hohepa M, Schofield G, and Kolt G. Adolescent obesity and physical activity. *N Z Med J* 2004; 17:117(1207:U1218.

12. Korkeila M, Rissanen A, Kaprio J, Sorensen T and Koskenvuo M. Weight loss attempt and risk weight gain: a prospective study in Finnish adults. *Am J Clin Nutr* 1999; 70: 965 –975.

Critical Review

Surveillance System in Turkey: Current Status and Compliance with Health Indicators Provided by Ministry of Health Required by International Organizations

Nazan Yardim[a], Zekiye Cipil[b]

Abstract

Background: Surveillance is the process of systematic collection, collation and analysis of data with prompt dissemination to those who need to know, for relevant action to be taken. Data disseminated by the surveillance system can be used for immediate public health action, program planning and evaluation. The aim of this paper is to analyze the existing registry notification forms used at health care facilities and to evaluate the corresponding health indicators used by the WHO, OECD and EU. **Methods**: Existing registry notification forms and Family Medicine Minimum Data Sets (MDS) used at health care facilities were analyzed. Shortcomings were determined by making an assessment of WHO, OECD and EU indicators. **Results:** There are 209 indicators that the WHO recommends, however, the number of corresponding indicators obtained from the existing forms used by the Ministry of health (MoH) is only 139 (67% of the WHO's) and MDS corresponds to only 75 indicators (36% of the WHO's). Whereas the number of indicators recommended by the OECD is 188, the number of indicators obtained from the existing forms used by the MoH is 117 (62% of the OECD indicators) and Minimum Data Set corresponds to only 15 indicators (8% of the OECD's). Eurostat for 86 indicators but the number of corresponding indicators obtained from the existing forms used by the MoH is only 12 (14% of EuroStat indicators) and there is not any corresponding indicator in the Minimum Data Set. **Conclusions:** The importance of surveillance and action reform is fundamental for reducing national and international threats of disease. The "Surveillance" system in Turkey, may not be satisfactory when considering *systematic collection, examination, interpretation and dissemination of health data.* Indicators which have been recommended by the international organizations should be utilized for regulatory efforts.

Key words: Surveillance, health indicators, international harmonisation

Introduction

Surveillance is the process of systematic collection, collation and analysis of data with prompt dissemination to those who need to know, for relevant action to be taken. A well functioning disease surveillance system provides information for planning, implementation, monitoring and evaluation of public health intervention programs (1). Data disseminated by a public health surveillance system can be used for immediate public health action, program planning and evaluation, and formulating research hypotheses (2). Surveillance is not research. If we confuse surveillance with research we may be motivated to collect large amounts of detailed data on each case. The burden of this approach is too much for the resources available for surveillance systems and usually leads to failure (3).

[a] MD, Public Health Specialist, Ministry of Health, Ankara, Turkey
b MD, Ministry of Health, Ankara, Turkey
Correspondence: Nazan YARDIM, MD, Public Health Specialist, Ministry of Health of Turkey, Head NCD Department, Ankara , TURKEY. E-mail: nazan.yardim@saglik.gov.tr

Aims: To analyze the existing registry notification forms used at health care facilities, make an assessment of corresponding health indicators and forms used by the WHO, OECD and EUROSTAT, and identify shortcomings and failures for harmonization with the WHO, OECD and EU standards.

Materials and Methods

Existing registry notification forms used at healthcare facilities and data reporting systems were analyzed. Definitions of health indicators used by international agencies were translated into Turkish and officially submitted to relevant Ministry of Health (MoH) units as soft copies. Then authorities in these agencies were asked to examine these indicators and find out if they corresponded to already existing ones. In addition, international indicators developed for Family Medicine were also checked against the Minimum Data Set (MDS) in order for all problems to be handled and settled.

Results

Existing Registry Notification System: In the traditional data collection system, rural organizations of the Ministry of Health (that is, Provincial Health Directorates) serve as data collecting centers. All data received from lower level administrative bodies by means of forms is collected in Provincial Health Directorates and then submitted to the Ministry of Health (4).

Unreliable information on births given at primary care facilities is collected by the Directorate General of Primary Care Services but could not be unified. The Ministry of Health obtains information on births in Turkey by means of the population projections of the State Planning Organization (SPO) and Turkish Statistic Institution (TURKSTAT) (4). Births should be recorded within a month as ordered by the existing rules and regulations, but only 75-80% of births are recorded within a month and the remaining 15-20% are recorded within four years (5). The projected number of births was 1,360,000 for 2004 whereas MERNİS (Merkezi Nüfus idare Sistemi/Central population management system) number of births is 1.120.328 (Table I).

Primary care forms

Primary care forms that can provide information on births include the following*:* Pregnancy and Maternity Care Follow-Up Form (Form 005), Monthly Work Statement for Midwives and Nurses (Form 008), Monthly Work Statement for Primary Care Facilities (Form 023), Monthly Work Statement for Primary Care Facilities from all Provinces and Total Form (Form 024).

Secondary Care Forms

Secondary care forms that can provide information on births include the follwing*:*Disease Statistics Form (For public and private hospitals) Form 053 (6).

Mortality data are collected for deaths occurring in provinces and districts. According to the law, health professionals are authorized to give a "*Burial Permit"***.** Before giving such permit, professionals first fill in "Death Statistics Forms" and then keep them at responsible healthcare facilities (hospitals, health centers, municipality medical offices etc.) for a month and at the end of this period send them to the Regional Directorate for the TİSM by means of the Provincial Health Directorates (7).

Primary Care Forms

Primary Care Forms that can provide information on mortality include the following: Household Identification Forms (Form 001), Monthly Work Statements for Physicians (Form 011), Disease Statistics Form (Form 018/A), Food Intoxication Form (018/C), Monthly Work Statements for Primary Care Facilities (Form 023), Monthly Work Statement for Primary Care Facilities from all Provinces, Total Form (Form 024), Neonatal Infant Mortality Form and Maternal Mortality Form.

Secondary Care Forms

Secondary Care Forms that can provide information on mortality include the following: Disease Statistic Form (For public and private hospitals) (Form 053) (6).

Health Status Data: Under current circumstances there is not type of form that can be used to obtain polyclinic morbidity data, especially from hospital polyclinics.

Notification of Communicable Diseases and Registry System: An innovative list was prepared for 51 diseases by 4 types of notification (6,8) .

Primary Care Forms for Notifiable Diseases.

Primary care forms that can be used for notifiable diseases include the following: Notifiable Diseases Form (Form 014), Group A,B,C, Diseases (Form 017/A, Form 017/B, Form 017/C), Lepra Study Scale, Trachoma Case Scale, Health Center /Province Trachoma Control Study Scale

Secondary Care Forms for Notifiable Diseases:

Secondary care forms that can be used for notifiable diseases include the following: Notifiable Diseases Form (Form 014), Group B,C Diseases (Form 017/B, Form 017/C), Province/ District Group D Disease (Form 017/D), Group D Infectious Factors Notification Form.

Forms To Be Sent to Provincial Health Directorates on A Monthly Basis.

These include the following: Vaccination Results Scale (Form 013), Private Physician's Vaccination Form (Form013/B)

Non-Communicable Diseases and Other Health Status Notification System:

Forms To be Sent to Provincial Health Directorates on A Monthly Basis. These include the following: Disease Statistics Form (Form 018), Environmental Health Control Scale (Form 020), Monthly Work Statements for Primary Care Facilities (Form 023), Monthly Work Statements for Primary Care Facilities from Provinces, Total Form (Form 024), Monthly Work Statements for Public Health Laboratories Form (063), Family Planning Studies (Form 102), Mother and Child Care Program Studies (Form 103), Monthly Blood Analysis Form (Form 113), Emergency Aid and Rescue Forms, Monthly GBP Surveillance Form, Dialysis Information Form, Red and Green Prescription Scale for Pharmacists and Physicians, Visit Schedules, Air Pollution Measurement Results, Cancer Notification Center Information Form, Health Personnel Statistics Form, Green Card Information Form, Iron Drop Information Form, Monthly Scale of Iron Supply for Pregnant women, Phenilketonuria Notification Form, D Vit. Insufficiency Prevention Program Form, Training Study Program Form, Public Training and In-service Training Form.

Forms To Be Sent To Provincial Health Directorates at Three Month Intervals. These include the following: Disease Statistics Form (Form 053), Personal Patient and Bed Counterbalanced Form (Form 056), Laboratory Studies Form (Form 0 57), Oral Dental Health Care Studies Form (Form 058), Income and Expenditure Information Form, Supply for Malaria Eradication in Provinces, 3 Month Expenditure and Personnel Form of Malaria Eradication in Provincial Health Directorates, Organ Transmission Notification Form

Forms to Be Sent to Provincial Health Directorates at Six Month Intervals. These include the following: 15-49 Aged Women Notification Form, RS (Ruh sagligi-Mental Health) 40 Patient Information Form Sent by Psychiatry Hospitals to Patients' Provinces, RS 50 Information Form Sent by Psychiatry Hospitals to the Ministry of health

Forms to Be Sent to Provincial Health Directorates by the End of the Year.

These include the following: Mid year Population Information Form 002- 003/A; mid year Population Information Form 002 – 003/B (6).

Cancer Registries by Health Centers, Public and Private Hospitals: Cancer cases are recorded through cancer registry centers. The "Cancer Registry Center Regulation", a directive on starting a "new system" for data

collection from some chosen provinces, instead of collecting cancer data nationwide through a passive system was published in January 2006. Registries are encoded in accordance with a third version of the ICD-10. (7).

Electronic Flow of the Existing Registry Notification System: In order for the recently developed information technologies to be used for health statistics, a Basic Statistics Module project (TSIM), which had been put into effect in 1997 based on a multitier data basis, was then re-designed and promoted as a web-based center in January 2005. Data covered by the program should be conveyed from health centers to Provincial Health Directorates at the latest by the end of the first 7 days of every month and data should be entered to the system at the latest by the 20th day of that month. There is not any kind of limitations with respect to data entry within the current system, which is a case that brings forward some problems of timing. To give an example, additions could be made in July to data, which were obtained in and are valid for January.

Forms Included in the Program.

These include the following: Distribution of Population by Age Groups, Gender and Residential Areas, Environmental Health Control Scale, Vaccination Results Scale, Monthly Work Statement for Primary Care, Psychiatric Diseases Information Form, Monthly Studies on Malaria, Disease Statistics Form, Notifiable Diseases Form, Rabies Suspected Contact Follow-Up Form, Mother and Child Care Program Studies, Family Planning Studies, Air Pollution Measurement Results, 15-49 Aged Women Reporting Form, Trachoma Studies Form, Monthly Study Report of Tuberculosis Eradication Dispensary, Emergency Aid and Rescue Work Statement, Laboratory Analysis Form, Monthly Blood Procedures Form, Dialysis Information Form, Personnel, Patient and Bed Counterbalance Form, Oral and Dental Health Studies Procedures Form, HIV Test Results (7).

Discussion

There are 48 forms in the MoH current registry system. WHO, OECD and EUROSTAT are leading international organizations which develop and collect health indicators and request such indicators also from our country at periodic intervals. As for Socio-demographic Status (Population, Socioeconomic factors) Health Status (Mortality, Morbidity, Perceived and functional health, Composite measures of Health Status) Health determinants (Personal and biological factors, Health behavior, Living and work conditions) Health system (Prevention, health protection and promotion, Health care resources, Health care utilization, Health expenditure and finance, Health care quality/ performance) the WHO uses 353, OECD uses 309 and EUROSTAT uses 190 health indicators, which means a total of 852 health indicators. However some of them are not under the supervision of the Ministry of Health and these are listed below:

Demographic and socioeconomic situation; Population, Population Dynamics (Births, Abortions, Crude reproductive rate, net reproductive rate), Socioeconomic Factors (Education, Employment, Household Characteristics, Ethnic Origin Citizenship, General Economy), HEALTH STATUS MORTALITY Life Expectancy and Related Indicators, General Mortality (Crude Death Rate per 1000 population, Standard Death Rates (SDR) (All Causes, All Age Groups, per 100000; Age Specific Deaths, All Age Levels) Infant and Perinatal Deaths, CAUSE SPESIFIC MORTALITY Infectious/Parasitic (Standard Death Rates (SDR), infectious and parasitic, 0-64 age per 100000, Causes of Mortality, infectious and parasitic diseases; ICD-10: A00-B99.vb), cancers (SDR ve Causes of Mortality according to ICD 10 code for all ages groups); Endocrine, Mental/ Behavioral (Causes of Mortality, mental and behavioral disorders; ICD-10: F01-F99. Years Lost of Life (YLL),), Nervous System /Sense (SDR, mental disorders & nervous system& sense organ disease, all age groups per 100000, Causes of Mortality , nervous system

diseases; ICD-10: G00-H95., YLL) Circulation System (SDR, Causes of Mortality, YLL), Respiratory System (SDR, Causes of Mortality, YLL), Digestive System, Skin, Muscle Bone System, Genitourinary System, Pregnancy (Causes of Mortality, pregnancy, delivery ve puerperium; ICD-10: O00-O99, YLL) Congenital malformations (Causes of Mortality, Congenital anomalies; ICD-10: Q00-Q99, YLL) External Causes (SDR, injuries and poisoning, murder and accidents), Definite specific (preventable) causes (SDR for Occupational accidental mortality per 100000, selected alcohol related causes per 100000; SDR, selected smoking related causes per 100000) (9).

These data have not been gathered by MoH directly. and actually it is not necessary for MoH.

TURKSTAT and Ministry of Interior are responsible for Population, Population Dynamics data; TURKSTAT is also responsible for Socioeconomic Factors data, Health expenditure and finance, (Health Care System, National Health Accounts, Medical Care Expenditure, Outpatients Medical Supplies, Health Expenditure according to the Providers, Health Expenditure according to Fund Source) and Mortality data. [I did not edit the above] Unfortunately cause of death has been taken according to the ICD 8 and most of mortality indicators included under the Health Status topic could not be given by the existing forms. [I did not understand this]

Mortality data have been collected by TURKSTAT, just covers province and district centers, marital status has a share of 15 % and education level 10 % in this information, physician who diagnose death mostly does not clarify the exact cause of death, handwriting is not easily readable, data processing personnel does not have overall health information and thus misinterprets and misprocesses the abbreviations used for causes of deaths (7).

On the other hand, it has been many afforded for changing death certificate by TURKSTAT. In this process new developed certificate is adopted according to the WHO and Eurostat offers. Training of trainers and pilot study were made by TURKSTAT. After this point, if the death certificates are filled in correctly by medical doctors which are very important point; MoH can ask related mortality rates to the TURKSTAT.

Besides in our country birth data could not be collected properly because of shortcomings in the existing registry notification systems, inadequate flow of information between agencies, Statistical Forms' being filled by unauthorized and incompetent people, ineffective use of relevant sources of data, lack of inspection, variety of forms used for data collection and inadequate number of personnel (Table 1). Ministry of Interior (MoI) is officially responsible for collected birth data. But MoH should be assistant to MoI about on these record's control because of many birth have been resulted in the health facilitates.

Table I. Mortality Statistics 2000-2004

	Years				
	2000	2001	2002	2003	2004
TURKSTAT Death Number (Projection)	415.000	422.000	429.000	436.000	443.000
MERNIS Death Number	333.364	363.296	332.955	348.044	340.694
TURKSTAT Population Projection	67.420.000	68.365.000	69.302.000	70.231.000	71.152.000
TURKSTAT Crude Death Rate (1000)	6,16	6,17	6,19	6,21	6,23
MERNIS Crude Death Rate (1000)	4,94	5,31	4,80	4,96	4,79

Source: Current Status of Surveillance System and Compliance with with Health Indicators Asked by International Organizations, Study and Evaluation Report

We have to keep in our mind; that preparing all these indicators (mortality, health expenditure and birth) by related institutions (TURKSTAT and MoI) depends on MoH record's accurate transferring and making self control all responsible institutions.

Other important point is to strength to the human resource in the TURKSTAT and MoI which they make to analyze the data for convert the indicators.

When we except to the these indicators which are responsibility under the TURKSTAT and MoI (mortality, health expenditure and birth); MoH responsibility indicators are shown below and Table 2.

Table II. Numbers of health indicators requested by WHO, OECD, EUROSTAT in comparison with numbers of available Turkish Health Indicators.

HEALTH INDICATORS		WHO	MoH	MDS	OECD	MoH	MDS	EURO STAT	MoH	MDS
Health Status	Morbidity	77	56	64	14	6	12	49	2	0
	Perceived and functional health	7	0	0	17	0	0	3	0	0
	Composite measures of Health Status	1	0	0	0	0	0	0	0	0
	Total	85	56	64	31	6	12	49	2	0
Health determinants	Personal and biological factors	0	0	0	3	0	0	9	0	0
	Health behavior	19	1	1	8	0	0	2	0	0
	Living and work conditions	1	1	0	1	1	0	0	0	0
	Total	20	2	1	12	1	0	11	0	0
Health system	Prevention, health protection and promotion	10	10	10	3	3	3	8	1	0
	Health care resources	60	44	0*	24	15	0*	7	5	0*
	Health care utilization	31	26	0*	118	92	0*	8	4	0*
	Health care quality/ performance	3	1	0*	0	0	0*	3	0	0*
	Total	104	81	10	145	110	3	26	10	0
Total number of Indicators by WHO; OECD EUROSTAT and MoH; MDS		209	139 %66.5	75 %35.8	188	117 %62	15 %7.9	86	12 %14	0

Source: Current Status of Surveillance System and Compliance with Health Indicators Asked by International Organizations, Study and Evaluation Report

***Health Status** (Morbidity (disease specific morbidity), Perceived and functional health, Composite measures of Health Status)
***Health determinants** (Personal and biological factors, Health behaviour, Living and work conditions)
***Health system**

- Prevention, health protection and promotion (immunization)
- Health care resources (Facilities, Human resources, Education, Technology)
- Health care utilization (Inpatient Care Using, Outpatient care using, Surgical operations and procedure, Drug use/medical aid)
- Health care quality/ performance **(**Health Care process indicators, Health outcomes)

Health System Health care resources, Health care utilization and Health care quality/ performance indicators have been excluded due to not been included in MDS data base.

Total number of indicators asked by the WHO are **209** and the number of indicators obtained from the existing forms used by the MoH, however, is only 139 (66.5%), Minimum Data Set corresponds to 75 indicators (35.8%); indicators number are **188** asked by the OECD and the number of indicators obtained from the existing forms used by the MoH, however, is only 117 (62%), Minimum Data Set corresponds to 15 indicators (7.9 %); indicators number are **86** asked by the Eurostat and the number of indicators obtained from the existing forms used by the MoH, however, is only 12 (14%), Minimum Data Set corresponds to zero indicators .

Health Status; Perceived and functional health, Composite measures of Health Status and Health determinants; Personal and biological factors, Health behavior, topics has been submitted as an example (Table 3). "Disease specific morbidity" indicators are basic indicators under the MoH responsibility and most of disease morbidity rates (especially for NCD) have not been produced by current forms.

Table 3: Comparison of some International Indicators with MoH Current Data Forms and Family Medicine Minimum Data Set

<table>
<tr><td colspan="2">WHO, OECD and EUROSTAT HEALTH INDICATORS</td><td colspan="2" rowspan="2">EXPLENATION</td></tr>
<tr><td colspan="2">HEALTH STATUS</td></tr>
<tr><td colspan="2">Perceived and functional health</td><td rowspan="2">MINISTRY OF HEALTH</td><td rowspan="2">OTHER</td></tr>
<tr><td></td><td>Perceived health</td></tr>
<tr><td rowspan="3">WHO</td><td>Female population % perceived health as good</td><td rowspan="10">-Data is not collected
- Data is not collected in MDS also.</td><td></td></tr>
<tr><td>Male population % perceived health as good</td><td></td></tr>
<tr><td>Total population % perceived health as good</td><td rowspan="10">Surveys</td></tr>
<tr><td rowspan="15">OECD</td><td>Health >=good, female, 15-24</td></tr>
<tr><td>Health >=good, female, 25-44</td></tr>
<tr><td>Health >=good, female, 45-64</td></tr>
<tr><td>Health >=good, female, 65+</td></tr>
<tr><td>Health >=good, female, all age group</td></tr>
<tr><td>Health >=good, male, 15-24</td></tr>
<tr><td>Health >=good, male, 25-44</td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td>Perceived and functional health</td><td>EXPLENATION</td><td></td></tr>
<tr><td>Perceived health (OECD)</td><td>MINISTRY OF HEALTH</td><td>OTHER</td></tr>
<tr><td>Health >=good, male, 45-64</td><td rowspan="6">-Data is not collected

- Data is not collected in MDS also</td><td rowspan="6">Surveys</td></tr>
<tr><td>Health >=good, male, 65+</td></tr>
<tr><td>Health >=good, male, all age group</td></tr>
<tr><td>Health >=good, total, 15-24</td></tr>
<tr><td>Health >=good, total, 25-44</td></tr>
<tr><td>Health >=good, total, 45-64</td></tr>
</table>

	Health >=good, total, 65+		
	Health >=good, total, all age group		
EURO STAT	Perceived health by gender, age, education and activity		
	Functional Limitations		
WHO	Disability people %, which have regular occupation activity age group	-Data is not collected - Data is not collected in MDS also.	-SHÇEK TURKSTAT
	New disability case per 100000	-Data is not collected - Data is not collected in MDS also.	-SHÇEK TURKSTAT
	New identified disability case number		
	Activity Limitation		
EURO STAT	Daily activity limitations because of physical or mental health problem, disease or disability	-Data is not collected - Data is not collected in MDS also	Surveys
	Short Term Activity Limitation		
EURO STAT	Inactivity due to health problems with in the last two weeks	-Data is not collected - Data is not collected in MDS also	Surveys
	Work absence		
WHO	Work absence due to illness, day/ per worker year	- Data is not collected - Data is not collected in MDS also	Ministry of Labour
OECD	Compensated work absence due to illness		
	Self reported work absence due to illness		
Composite measures of Health Status			
WHO	DALE (Disability Adjusted Life Expectancy)	-Not available because mortality data is not collected accurately - Data is not collected for analyse in MDS	Surveys
HEALTH DETERMİNANTS			
Personal and biological factors			
	Biological (Risk) factors		
OECD	Obese population	- Height and weight data is not collected - Height and weight data is not collected in MDS also	Surveys TURKSTAT
	Overweight or obese population		
	Overweight		
EURO STAT	Average BMI by age and gender -1996		
	Average height by age, gender, education and labour		

	Average weight by age, gender, education and labour		
	BMI by age, gender, education and labour according to WHO-EURO 1996 BMI categories		
	BMI by age, gender, education and labour according to Current WHO-EURO BMI categories		
	Height and weight 1996 according to gender and age		
	Population Height		
	Personal and biological factors	EXPLENATION	
	Personal Conditions	MINISTRY OF HEALTH	OTHER
EURO STAT	Population %, by declared life style	- Life style and risk factors data is not collected - Life style and risk factors data is not collected in MDS also	Surveys
	Smoking attitude population %, by age, gender, education and labour		
Health behaviour			
	Drug Use		
WHO	Regular smokers %, with in the population, 15+ age	- Life style and risk factors data is not collected - Life style and risk factors data is not collected in MDS also	- Surveys -TEKEL
	Consumption of beer according to pure alcohol, per person litre		
	Consumption of number of cigarettes per person year		
	Consumption of pure alcohol, per person litre, 15+ age		
	Consumption of pure alcohol, per person litre,		
	Consumption of ethyl alcohol according to pure alcohol, per person litre		
	Number of total cigarettes consumption (ppm), per year		
	Consumption of wine according to pure alcohol, per person litre		
	First Entries into the drug treatment centre per 100000'		
	Number of first Application to the drug treatment centre		
OECD	Alcohol consumption (litters per capita)	-- Life style and risk factors data is not collected - Life style and risk factors data is not collected in	Surveys -TEKEL
	Average number of cigarettes per smoker per day)		
	Daily smokers (female, male, total population)		

	Tobacco consumption (grams per capita)	MDS also	
	Nutrition		
WHO	% of babies, taking breast feeding first 3 months.	- Nutrition data is not collected - Nutrition data is not collected in MDS also	Surveys
	% of babies, taking breast feeding first 6 months.		
	Total energy %, intake from fat		
	Total energy %, intake from Protein		
	Average cereal (kg) per person per year		
	Average fruit and vegetable (kg) per person per year		
OECD	Average Calory (kcal) per person per day		
	Using fat (g) per person per day		
	Using protein (g) per person per day		
	fruit and vegetable consumption		
	Sugar consumption		
	Total calorie and protein intake		
	Total fat intake		
EURO STAT	Total calorie intake per person per year		
	Total protein intake per person per year (g)		
	Health related other behaviours		
WHO	Using contraception, all methods, 15-49 ages, married women	-Available Family Planning Form 102 and 102 A and 15-49 age Female Fallow Cards *-Available MDS*	Surveys
Living and work conditions		EXPLENATION	
	Physical Environment	MINISTRY OF HEALTH	OTHER
WHO	Distribution of Sulphur dioxide, per person per year (kg)	-It is available by Air pollution Measurement Form which is collected for provinces and districts – -Data is not collected in MDS	
OECD	Quality of air	-Not available because of lack of data about Carbon monoxide and Nitrogen oxide in air pollution measurement form -Data is not collected in MDS.	
	HEALTH SYSTEM		

	Prevention, health protection and promotion		
	Disease Prevention		
WHO	Immunisation of Measles %,	-Available with Form 013, Form 013/B and Form 006 - *Available in the MDS also*	Surveys
	Immunisation of diphtheria %		
	Immunisation of Hepatitis B %		
	Immunisation of pertusis %		
	Immunisation of Poliomyelitis %		
	Immunisation of Tetanus %		
	Immunisation of TBC %		
	Immunisation of Mumps %		
	Immunisation of Rubella %'		
	Immunisation of Hemofilus influenza tip B %	- Available with Form 013 and Form 006 - *Available in the MDS also*	Surveys
OECD	Immunisation; influenza		
	Immunisation; diphtheria, tetanus, pertusis	- Available with Form 013 and Form 006 - *Available in the MDS also*	Surveys
	Immunisation; Measles		
EUROSTAT	Mammography among the Women	-Not available because there is no mammography in the Form 057 (Lab Study Form) - *Available in the MDS.*	
	% of General preventive screened population by age and gender	-Not available *-Not available in the MDS also*	
	% of specific screened female population by age and gender		
	Screened Prostate cancer		
	Screened uterus-cervix cancer		
	Screened population for HIV	-Available in the HIV Test Renaults Form - *Available in the MDS.*	
	% of children receiving regular dental care	- Available by Form 023 - *Not available in the MDS*	Ministry of Education
	% of children receiving regular screening	-No available - *Not available in the MDS also*	Ministry of Education

Following could be considered as the reasons for the case:

- There is not a specific unit at the Ministry of Health which is responsible for collecting, analyzing and publishing data in one hand.
- Existing registry notification system could not provide accurate and complete data because of the Statistical Forms' being filled by unauthorized, variety of forms used for data collection, misunderstanding the functions of these forms, lack of personnel and education
- Results published usually consist of the information on the "number of cases" and the "number of procedures", which are not incidence rates and thus not eligible for interpreting anyway.
- Forms already in use are not satisfactory. Thus, it would not be meaningful to transfer such useless forms to the electronical environment.
- Repeated diagnosis of the same case at different healthcare facilities
- Individual-based data on chronicle diseases could not be collected
- Cancer data could only be published after a certain period and in two or three years. (To give an example, statistics for the year 2002 were about to be published in June 2005). Another problem with the active system implemented today is the quality of data. Besides, inadequacy of filing and archive system at hospitals, automation systems, lack of professional definitions for cancer registering personnel, ignorance of registration by provincial and hospital managers, deployment of trained cancer registering personnel for other stuff and excessive turn-over, lack of personnel with competence in statistics and English aggregate the problem, as well. Yet, there is no information on singular treatment phases and cancer-caused deaths. Thus, what could be measured is only incidence but not prevalence (7)
- Both the central and rural organizations of the Ministry of Health and intra-mural bodies at the central organization of the MoH and relevant stakeholders do lack proper cooperation and coordination.
- It is important to make revision and restructure of MDS data base for taking NCD and risk factors indicators

There is no specific research on the surveillance system evaluation in Turkey. Although surveillance studies especially on infectious diseases and hospital infections have been done, however these studies are not system evaluation studies (10, 11, 12,13,14,15,16,17). In the study conducted by Acikel and Ozcebe, accident and injury surveillance study, surveillance system was evaluated and the main problems were highlighted as the discrepancy between persons collecting data, the data collection system (forms collected by hand, agricultural workers and their families not included in the system), problems on standardization of codes and definitions, problems on data transmission and analysis (analysis done at the local level e.g. by institutions, risk factors not involved in the analysis) (18). Besides, in another study, Temel and Ozcebe stated that there was no modern data bank on traffic safety. The General Directorate of Security (GDoS) collects only the accident reports. Turkish Statistical Institute (TURKSTAT) has to prepare their accident and injury statistics from the data taken from GDoS, in which they contain only the numbers of accidents and casualties. The accident related deaths in the hospitals are reported by the Ministry of Health, and these separate data are not matched anyway. Underreporting is another main problem (19).

Some activities are also conducted related to the situation. There are ongoing efforts in order for such data to be obtained from the MERNİS data base. To this end, it is planned

to maintain the USST I project which targets to ensure the "Improvement of Administrative Records of Birth, Mortality and Mortality Causes" and USST II project which targets to ensure the Improvement of Administrative Records, analysis of the MERNİS data, study visits, debriefing meetings with the Population Directorates and studies on the cases of birth and death. (7). A commission consisting of the TURKSTAT and MoH agreed to adopt "death certificate/mortality forms" developed by the WHO and EUROSTAT.

On the other hand, Turkey is a candidate EU member country. *The European Community, on the other hand, does have* the EUROPEAN PARLIAMENTARY and EUROPEAN COUNCIL RESOLUTION *on the Establishment of Epidemiologic Surveillance System Networks and Control of Communicable Diseases* (20). It could be considered regarding the case in Turkey that "*selection of diseases"* and identification of a certain disease's surveillance criteria by the categories indicated in the "Annex" to the Paragraph B and *Case Definitions* included in the Paragraph C with respect to clinical and microbiological characteristics are executed by the guidelines developed. Notification-based system is available in Turkey for epidemiologic surveillance of communicable diseases. However, the system is not satisfactory if it is considered that the concept of "epidemiologic surveillance" consists of *systematic collection, analysis, interpretation and dissemination of health data.* Unfortunately it could not be asserted that the existing system fully allows the analysis, interpretation and dissemination of data on notifyable diseases. Re-evaluation might be helpful for full compliance and/or update. It is envisaged to set up an" early warning and action system for prevention and control of diseases"

There have been a number of efforts and projects of Ministry of Health which have been called as 'reform'. Health Transformation Program has been implemented in our country since 2003. One of the program components is to establish Health Information System (e-health) (21). In this scope, in order for giving all the international indicators, all health information system infrastructure is being reorganized on the basis of primary level and hospitals.

In a study conducted by Scott and et. al, country-level reformers, in application, measure both the presence and performance of the six core activities comprising public health surveillance (detection, registration, reporting, confirmation, analyses, and feedback) and acute (epidemic-type) and planned (management-type) responses composing the two core activities of public health action. Four support activities – communications, supervision, training, and resource provision – enable these eight core processes. Authors purpose the application of this conceptual framework of public health surveillance and action using five –phase (preparation, assessment of public health surveillance and action, development of a Plan of Action, implementation, monitoring and evaluation) approach to national-level reform (22).

The existence of an accurate and effective surveillance system is as important as its evaluation. The evaluation of public health surveillance systems should involve an assessment of system attributes, including simplicity, flexibility, data quality, acceptability, sensitivity, predictive value positive, representativeness, timeliness, and stability (2). It is noteworthy to consider these points when anticipating a new system.

Although the factor of personnel competent in epidemiology, surveillance and basic statistics is significant for proper and effective use of surveillance, a study conducted by Yardim and et all indicated that epidemiology training occupies just the 8^{th} rank among 11 other topics of in-service trainings, which the Provincial Health Directorate managers would like to have. The study also pointed out that the ratio of having Health Management Training is 35 %, 55 % of which is given by the Ministry of Health, and the ratio of having public health training is 19 %, 64 % of which is given by universities and 9 % of by the Ministry of Health (23) . The School of Public

Health and Primary Health Care General Directorate organize trainings so as to eliminate deficiencies in the issue.

Finally Investments are essential for healthcare services planning. By investing in public health surveillance the public health system is made more effective and efficient (3).

The importance of surveillance and action reform is fundamental for reducing national and international threats of disease. When re-structuring the surveillance system, indicators identified by international agencies should be taken into consideration and re-defined. Being the reference (source) agency and primarily responsible for life and disease statistics, the Ministry of Health should take part in necessary adjustments.

Acknowledgements: We would like to extend our most sincere thanks to Dr. Engin Ozkan, Dr. Berrak Basara, Dr. Feray Karaman, Dr. Serap Coban and Dr. Handan Kalaycioglu for their contributions in the efforts to prepare—the Current Status of Surveillance System and Compliance with Health Indicators Asked by International Organizations, Study and Evaluation Report.

References

1. Protocol for the Assessment of National Communicable Disease Surveillance and Response Systems, Guidelines for Assessment Teams, World Health Organization Department of Communicable Disease Surveillance and Response WHO/CDS/CSR/ISR/2001.2
2. Public Health Surveillance Toolkit, Anabela Garcia-Abren, William Halperin, Isabella Danel, World Bank, February 2002
3. Updated Guidelines for Evaluating Public Health Surveillance Systems, Recommendations from the Guidelines Working Group, Recommendations and Reports, July 27, 2001/50 (RR13);1-35
4. Evaluation Report on the Ministry of Health Prepared By 5 Main Data Providers in Turkish Statistics System, TURKSTAT, October 2005
5. Vital Statistics, TURKSTAT, February 2006
6. Ministry of Health, Data Collection Forms
7. School of Public Health Directorate, Current Status of Surveillance System and Compliance with Health Indicators Asked by International Organizations, Study and Evaluation Report, January 2007
8. Standard Diagnosis, Surveillance and Laboratory Guidelines for Communicable Diseases Warning and Notification System, 1 January 2005
9. http://www.healthindicators.org/ICHI/(i0bi3034ai5hwa55l13dft45)/General/ECHI_Hierarchy.htm
10. Geyik M.F; Hoşoğlu S.; Ayaz C; Çelen M.K; Üstün C. Surveillance of nosocomial infections in Dicle University Hospital: A ten-year experience, 2008,38(6):587-593
11. Gur D. Mulazimglu L; Unal S, Solunum yolu enfeksiyonu etkenleri streptococcus pneumoniae ve streptococcus pyogenes'in telitromisin ve 11 antimikrobik ilaca in vitro duyarlılığı:E-baskett-II surveyans çalışmasının Turkiye sonuçları, Mikrobiyoloji Bulteni, 2007,41(1):1-9
12. Vancelik S. ve ark, Ataturk Universitesi Tip Fakultesi Hastanelerinde hastane infeksiyonları: 2005 yılı sonuçları, Turk Silahlı Kuvvetleri Koruyucu Hekimlik Bulteni, 2006,5(3):159-165
13. Coskun O; Gul H. Cem; Besirbellioglu A. B.; Eyigun C., Eskisehir asker hastanesi'nde hastane infeksiyonu surveyansı**,** Turk Silahlı Kuvvetleri Koruyucu Hekimlik Bülteni, 2006, 5 (6): 402-407
14. Atambay M ve ark; Malatya'da aktif surveyans ile saptanan sitma vakaları, Turkiye Parazitoloji Dergisi, 2006, 30 (2): 86-88
15. Polat O.ve ark; İbn-i Sina hastanesi acil servis'ne basvuran hastalarin surveyans analizi, Turkiye Acil Tip Dergisi, 2005,5(2):78-81

16. Aldemir M. ve ark , Yanik unitesinin hastane enfeksiyonlari (İki yillik calisma) Ulusal Travma Dergisi, 2000,6(2):138-141
17. Tunger O. ve ark ; Celal Bayar Universitesi Hastanesinde 1998 yili hastane infeksiyonlari surveyans sonuclari, Infeksiyon Dergisi / Turkish Journal of Infection, 1999,13(3):359-364
18. Acikel C. Ozcebe H., Turkiye'de kaza ve yaralanma sürveyansı, Saglik ve Toplum, 2005,15(3):8-17
19. Temel F, Ozcebe H, Turkiye'de Karayollarinda Trafik Kazalari, STED 2006, Cilt 15, Sayı 11 192
20. Decision of The European parliament and of The Council 24 September 1998
21. Transformation in Health Ministry of Health of the Republic of Turkey 2003 December
22. Scott JN McNabb, Stella Chungong, Mike Ryan, Tadesse Wuhib, Peter Nsubuga, Wondi Alemu, Vilma Carande-Kulis and Guenael Rodier, Conceptual framework of public health surveillance and action and its application in health sector reform, *BMC Public Health* 2002, 2:2
23. Yardim et.al, Qualifications of Provincial Health Directorate Managers Participating in the NBD-CE Study Training Meeting and Their Proposals For Healthcare Services (Oral Statement), II. National Congress on Health and Hospital Management, Book of Statements, 28-30 September 2005 Hilton Hotel, Ankara

Critical Review

The Homosexual Movement and the Responsibilities of Public Health Providers in Turkey

Nurhan Meydan Acımış[a]

Abstract

Despite the existence of international charters on human rights and reproductive health, the concept of homosexuality still receives prejudice in many countries. The homosexual movement in Turkey has been weakened within the dynamics of homophobia but is gaining strength by establishing an organized structure (through associations such as KAOS GL, Lamp Istanbul, Anatolian Bears Legato in Turkey). Though this movement has received social support, it still has not obtained the attention of public health care providers. What can public health care providers do in developing countries and what should be their main aims? Their main aims should be:

- To create national health care policies without discrimination regarding homosexuality,
- To provide confidentiality about health risks encountered within their country,
- To advocate the right to demand and purchase health care services for homosexuals,
- To back planning of health care services to protect the well-being of homosexuals nationwide,
- To utilize the data obtained in the planning of health care services.

The main aim should be to reduce global homophobia.

Key word: homosexuality, homophobia, public health

Introduction

This study is only one many studies that should be conducted to reduce homophobia in a civilized world. To this end, public health care providers have some responsibilities. In addition to the existence of sexual discrimination against women, that of homosexual discrimination should also be made visible in order to achieve integrity in public health care services. With a new approach, the aim is to integrate public health care services that preserve social integrity into the health care services for homosexuals[1, 2]. These efforts must be added to the efforts made to achieve a society without gender discrimination. Establishing a peaceful health care environment can only be achieved with collective determination.

The historical origin of the homosexual movement is relatively recent. A center for the bars attended by American gays, Christopher Street in NYC witnessed an unprecedented pitched battle in 1969. In this street, which would be named after this movement, the angers of a great many gays beaten, assaulted, and subjected to violence by the police turned into a pitched fight with stones and sticks for three consecutive days. And the reaction marked a turning point for homosexuals. The libertarian movement of the 1968 generation storming the whole world

[a]**Corresponding author:** Nurhan Meydan Acımış, Denizli Devlet Hastanesi Denizli Turkey. E-mail: nurhan88@hotmail.com

received huge support for the homosexual campaign. Having emerged as a tole in the US, the movement spread into Europe. While a rapid organization process commenced in Europe, it was only a matter of time before it saw its counterpart in our country.

This article includes a history of homosexual activities in Turkey and the public health care approach expected to be established through these activities.

The first step in the Homosexual Movement in the Republic of Turkey was taken by the Environmental Health Foundation in İzmir founded by İbrahim EREN and the participation of a group of homosexuals from İzmir gathering in therapy sessions. This movement was not taken further due to the on-going political tensions in the 1980s. The same community later gathered at meetings in İstanbul, under the name of 'Wednesday Tea Parties'. At these meetings, homosexuals expressed their problems, and met with the media. The concept of homosexuality first appeared in the press in a magazine called 'Yeni Gündem' (New Agenda) with the title 'guilty without a crime'. Though 'İbrahim EREN' aimed to establish the Radical Democratic Green Party where anti-militarists, atheists, feminists, and homosexuals could work together, he could not succeed in doing this . In May 1987, transvestites went on a hunger strike which was ended harshly. In Turkey, the Queer theory came to be known in the last quarter of the 20th century. Drawing upon a number of disciplines such as history, sociology, and literature, and being shaped as the extension of post – constructivist thought and feminist theory, the Queer theory was developed on agenda based on several studies during the 1980s and held a critical view to its former lesbian and gay studies[3].

The contents of this theory and its effects on society led to an important discussion among homosexual activists, and a few academicians. This theory not only strengthened the homosexual movement in Turkey, but also brought about a challenge which became the center of the homosexual movement. The homosexual movement in Turkey strives to oppose homophobia and discrimination and to prevent violence. The homosexual movement in Turkey comprises local dynamics and is also affected by the ideas of the movement in the West. Contrary to the West, the feminist movement in Turkey has not emerged from within the homosexual movement. In addition to considering the developments in the global homosexual movement as relevant experiences, the homosexual movement in Turkey has regarded forming a sub-culture and becoming a closed community with its own structure. The homosexual movement in Turkey which has started to express its sexual identity in labor-day demonstrations, forums, and other mass gatherings has embraced its differences, and is led by the experiences of the western and global homosexual movements. This movement includes in its policy the religious realities that the leftist ideology has ignored or overlooked. The homosexual movement in the civil environment is carried out by movement groups at universities in Turkey. The homosexual civil organizations that emphasize the gay identity and seek participation in that identity are looking for political expansion and trying to establish a political identity. This movement aims to express itself-not only in relation to sexual freedoms but also via topics that have higher social sensibilities such as anti-militarism and human rights. Thus, the homosexual movement brings support to both humanitarian and a democratic social structure[1, 2].

HOMOSEXUALITY, PUBLIC HEALTH AND HEALTH CARE SERVICES

Homosexuality and Public Health

The concept of homosexuality was excluded from the classification of psychiatric disorders. The International Planned Parenthood Federation (IPPF) has published the Charter on Sexual and Reproductive Rights, drawing an ethical framework regarding a healthy sexual life[4,5]. In the charter, it was stated that all persons have the right of access to education and information related to sexual health services, the right to choice, safety, privacy, confidentiality, dignity, benefiting from services free of problems and freedom to express opinions. Homosexuality is an important public health issue in Turkey in terms of human rights, international declarations and goodwill pledges, the right to health care services, justice-based social rights, and the effects of civil movements. Public health care services for homosexuals in Turkey should be planned and integrated with global health care efforts, and the health status of homosexuals should be improved. All these efforts will be important justice-based steps in establishing global health. As in some other countries, homosexuals in Turkey also prefer not to disclose or deny their own due to the dominant cultural values, and thus they do not receive the sexual health care services they should be entitled to. Therefore, an unprejudiced social and medical environment should be created, and homosexuals' right to freedom of sexual choice and access to health care services should be taken into consideration.

Planning of Health Care Services

Firstly, health care administrators must endeavor to change the homophobic structure within society. The efforts of civil organizations and the concept of sexuality within the society should be considered on a multi-dimensional basis. The subject of social sexuality must be removed from being solely woman-centered in the visual, audio and written media, and the effects of the presence of male-dominant authority on different sexual preferences should be evaluated. In multiple-content programs, pioneers and leaders of the homosexual movement should be present, and discussion meetings should be held. In medical training, sexual health education should adopt a love-centered approach rather than an approach based on reproductive health, and adequate sensitivity among students must be created[6]. Coordination between medical and social science disciplines should be established in studies and assessments relating to homosexuality[1,7, 8] . The planning of sexual health care services must include the following topics:

a) Sexually transmitted infections and their prevention,
b) Safe sex,
c) Healthy sexual life,
d) Protection against addictive substances,
e) Legal sexual rights,
f) Psychological support,
g) Studies of sexual behavior in the Turkish society of the future.

By establishing complete confidentiality for homosexuals contacting and utilizing health care services education must be provided for those who seek it /need it . A model that is less costly and provides more effective health care services should be established. Sexual health care services must be integrated with the future health care services. Homosexuals can be provided with free support in the diagnosis of diseases particularly for HIV. Their knowledge about safe sex should be increased. Students in educational institutions, teachers of theology, ranked and unranked soldiers, detainees etc. should be educated about the subject[9]. Media support should also be established. Decreasing homosexuals' feelings of

worry and guilt is the most significant necessity in creating a healthy sexual life for them. It is of the upmost importance in terms of establishing justice and equality in public health among men and women . This must be seen as the most basic step in reaching the ideal civilized society in the struggle against social homophobia. The social health system must be restructured, taking into account the powerful stand displayed by the homosexual movement against all forms of reactions in the country, with activists supporting this effort and all homosexual individuals. This approach is necessary not only for the developed countries but also for developing countries that aim to cooperate with the global society.

Acknowledges: This article was presented at the 11th World Congress on Public Health in Rio de Janeiro, Brazil.

References

1.Lee H. Why sexual health promotion misses its audience: men who have sex with men reading the texts. *J Health Organ Manag* 2007; (2-3): 205-19

2.Johnson CV, Miagama MS, Bradford J.. Health care issues amaong lesibian gay bisexual transgender and intersex (LGBT) population in the United State; Introduction. *J Homosexuality* 2008; 54(3): 213-24

3. Tierney W. Academic Outlaws: Oueer Theory and Cultural Studies in the Academy London ,1997

4.Amerikan Psikiyatri Birligi(2000). DSM-IV-TR Tanı Ölçütleri Başvuru El Kitabı Hekimler Yayın Birligi Ankara, 2005

5.Ureme Haklari ve Cinsel Haklar Bildirgesi (IPPF), Vizyon 2000, Uluslararasi Federasyonu 1996. Türkiye Aile Planlaması Dernegi Yayınları, no 54, 1997.

6.Corliss HL, Shankle MD, Moyer MB. Research, curricula, and resources related to lesbian, gay, bisexual and transgender health in US school of public health. *Am J Public Health* 2007; 97(6): 1023 -7

7.Mulligan E, Heath M. Seeking open minded doctors- who women identify as bisexual, queer or lesbian seek quality health care, *Aust Fam Physician* 2007; 36(6):469-471

8.Steele LS, Ross LE, Epstein R, Strike C, Goldfinger C. Coralates of Mental Health Servise use among Lesbian, gay, and bisexual mothers and prospective mothers. *Women Health* 2008; 47(3):95-112

9.Smith D.M. Active duty Military personnel presenting for care at a Gay's Men's Health Clinic. *J Homosexuality* 2008; 54(3): 277-9