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Editorial

Author

Dr Abdulrazak Abyad

Chief editor

This is the last issue this year, and it was a successful year for the journal .

During this year the Middle East Network on Ageing Research, MENAR, was established. The MENAR mini website is hosted on the journal website.

The aim of the MENAR is to develop Geriatrics and Gerontology Research in theregion, in addition to establishing links with a number of international organizations dealing with elderly issues. MENAR assisted the International Network for the Prevention of Elder Abuse in their World View Environmental Scan of Elder Abuse by coordinating the responses of the different countries from the Middle East

In this issue Mmohammadi et al reviewed the Self-efficacy and Caregiver Strain in Alzheimer's Caregivers. A convenience sample of 81 caregivers was surveyed. The findings implicate the need for further investigation and development of supportive relevant caregiver intervention strategies.

Azimian et al reviewed epilepsy in the elderly. In his review of aged people he stressed that epilepsy is very common in this age group, where the incidence of epilepsy in the elderly (over 80 years old) is 140 in 100000. Therefore diagnosis of this disease and appropriate treatment needs special consideration.

A study from Pakistan looked at the causes of initiation and promotion of cannabis smoking among local transport drivers of Peshawar. The study was a descriptive observational study using a questionnaire. The authors concluded cannabis smoking is common in local older transport drivers. The major causes that are involved in the initiation and progression of cannabis smoking are; driving in young age, poverty, lack of education, easy availability of cannabis, inspiration from colleagues and smoker parents.

A study from Iran reports on Health promotion behaviors among elderly. A total of 410 community residents who were over 60 years old and cognitively intact were selected. There were statistically significant differences in the mean score of Health promotion behaviors with regard to gender, age group, and education, economic status, perceived health status to the peer group of elderly, living arrangements, and number of chronic diseases.

Dr Kavari S et al reviewed the measures to prevent complications from bed ridden elderly. He studied preventive strategies in different hospitals. He concluded that in most of the hospitals studied, adequate preventive strategies are not implemented

Neisani L et al studied the Effect of vaginal weight cones on stress incontinence. The author outlined that urinary stress incontinence is the most common female urinary incontinence especially in the elderly. The aim of the study is to determine the effect of cone therapy on urinary stress incontinence. The study involved 60 incontinent women who were selected consecutively. The author concluded that Cone therapy is an effective method for urinary stress incontinence. In our opinion while cone therapy cure rates are (slightly) higher than cure rates from pelvic floor exercises, some women would find cone therapy unacceptable.

Sincerely,

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Original Contribution/Clinical Investigation

Health promotion behaviors among elderly in west area in Tehran-Iran2006

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ABSTRACT

As individuals live longer, health promotion behaviors become even more important, particularly with regard to correlated factors.

The purpose of this study was to understand health promotion behaviors and their correlated factors in Iranian elderly living in west area in Tehran-Iran.

This study was a descriptive-correlational study to explore the relationship between health promotion behaviors and correlated factors.

A convenience sample of 410 community residents who were over 60 years old and cognitively intact were selected from 6 regions in west of Teran.

Participants who consented to participate in the study were interviewed by trained interviewers with a structured questionnaire.

Results

The mean score of health promotion behaviors was 7.08 ± 1.59 , range 3-9), indicating that the study participants engaged in approximately 7 health promotion behaviors. Approximately 85.9% and 94.6 of the participants neither smoked nor drank alcohol. 69.3% and 69.8, 64.6% of the elderly engaged in low salt diet and low fat diet and exercise, respectively. 76.8% and 75.6% consumed milk and dairy and meat, fresh vegetables and fruits respectively. Only 0.7% received flu shots. There were statistically significant differences in the mean score of Health promotion behaviors with regard to gender, age group, and education, economic status, Perceived health status to the peer group of elderly, Living arrangement, number of chronic diseases.

Keywords: Health promotion behaviors; Elderly

Introduction

With the aging of the world population, more than One-quarter of the world's population will be over the age of 60 by the year 2100⁽¹⁾. As in most other countries, the proportion of elderly people is increasing every year in Iran due to decreased birth rates and increased longevity. The proportion of those 60 years and older in Iran was approximately 12 % in 2004 and is expected to rise 15% in 2020⁽²⁾. As individuals live longer, health promotion behaviors become even more important, particularly with regard to correlated factors⁽³⁻⁴⁻⁵⁾. Issues in health promotion for older persons are related to their independence in every day life, high cognitive and physical function, and active engagement with life⁽⁶⁾. On health promotion and aging highlighted regular exercise, smoking cessation, avoiding excessive alcohol use, Nutrition, and having age-appropriate immunization. These behaviors are encouraged with the intention of reducing the potential years of life lost in premature mortality and ensuring better quality of remaining life⁽⁷⁾. There is considerable evidence that health-promoting behaviors of older adults offer the potential for improving health status for reducing the cost of health care⁽⁸⁻⁹⁻¹⁰⁻¹¹⁾. Especially, culturally sensitive guidelines are becoming more important because of the rapid growth of the older population and the growing awareness of the importance of cultural differences.

Therefore, this study examined the degree of health Promotion behaviors and the relationship between health promotion behaviors and correlated factors in the Iranian elderly who live in the west area in Tehran-Iran. This study will elucidate the health promotion behaviors that Iranian elderly engage in. This investigation of the relationship between health promotion behaviors and correlated factors will help health care professionals to develop evidence-based health promotion strategies in the community to facilitate healthy and active life for the elderly population. Ultimately, this will help these individuals achieve their highest level of Health promotion behaviors.

Methods

This study was a descriptive-correlational study to understand health promotion behaviors and their correlated factors in Iranian elderly living in west area in Tehran-Iran. The sample included 410 community residents who were over 60years old, cognitively intact Participants were conveniently selected from 6 regions in west of Tehran. Subjects who consented to participate in the study were interviewed by trained interviewers with a structured questionnaire at the time of consent, or a subsequent interview was scheduled that was more convenient for the

participants.

This study was approved by the Institutional Review Boards of the senior centers and public health centers. Health promotion behavior checklist Participants were asked about smoking cessation, alcohol abstinence, exercise and low salt diet, low fat diet, drinking milk, consumption of dairy and meat, consumption fresh vegetables and fruits. Participants were also asked whether or not they had had a recent blood pressure (BP) check-up, flu vaccination (within the past year), and health check-up (within the past 1-2 years). The criteria for specific health behaviors are shown in **Table 1**. If the criteria were met, for example, if the individual engaged in exercise for 20 min at least three times per week, then an affirmative ‘‘yes’’ was marked for exercise behavior.

Data analysis

Descriptive statistics were used to consider health promotion behaviors, perceived health status, number of chronic illnesses. T-test and ANOVA were used to explore the differences in quality of care by the status of specific health promotion behaviors, and socio-demographic variables.

Table 1 Criteria for health promotion behaviors Behavior Criteria

Smoking cessation	Currently not smoking
Alcohol abstinence	Currently not drinking
Exercise	Physical activity at least three times per week, 30 min per session
Low salt diet	Monitors salt in diet
Low fat diet	Monitors fat in diet
Drinking milk	Currently drinking
Consumption of dairy and meat	Currently consumption
Consumption fresh vegetables and fruits	Currently consumption
Flu vaccination	Within the past year
Health check-up	Within the past 1–2 years
BP check-up	Within the past year

Results

The majority of the participants was male (55.6%), 60-74 years old (77.3%), with no schooling (30.5%), and married (80%). The mean age was 69.71±6.84 years old with a range of 60-86. Examining the living arrangement of the elderly, 55.1% of the elderly lived with spouse, and with their family (30%), followed by alone 12.9 % (**Table 2**).

On average, these participants had 2.18 chronic illnesses. Arthritis (60%) was the most common health Problem, followed by hypertension (36%), cataract (34.9%) and gastrointestinal disorder (26.8%). In terms of perceived

health status, 32.9% of the participants indicated that their health was poorer compared to their peer group of elderly.

Table 2 Socio-demographic characteristics of the study sample (N = 410)

Characteristic	Category	Frequency (%)
Gender	Male	228 (55.6)
	Female	82 (44.4)
Age	60–74	317 (77.3)
	75–86	93 (22.7)
Education	No schooling	125 (30.51)
	Elementary school	169 (42.21)
	Middle school	33 (8.04)
	High school and over	83 (20.24)
Marital status	Married	328 (80)
	Widowed	73 (17.8)
	Divorced	8 (2)
	Single	1 (0.2)
Living arrangement	Alone	53 (12.9)
	Husband/wife	226 (55.1)
	Family	123 (30)
	Relatives	8 (2)
Economic status	Dependent	320(78)
	Independent	90(22)
Perceived health status to the peer group of elderly	Better	158(38.5)
	The same	117(28.5)
	Poorer	135(32.9)
Number of chronic illnesses	0	54(13.2)
	1	108(26.3)
	2	92(22.4)
	3	79(19.3)
	4	39(9.5)
	5	23(5.6)
	6	13(3.2)
	7	2(0.5)

The mean score of health promotion behaviors was 7.08±1.59, range 3-9, indicating that the study participants engaged in approximately 7 health promotion behaviors. Approximately 85.9% and 94.6 of the participants neither smoked nor drank alcohol. 69.3% and 69.8, 64.6% of the elderly engaged in low salt diet and low fat diet and exercise, respectively. 76.8% and 75.6% consumed milk and dairy and meat, fresh vegetables and fruits respectively. Only 0.7% received flu shots. There were statistically significant differences in the mean score of Health promotion behaviors with regard to gender, age group, and education, economic status, Perceived health status to the peer group of elderly, Living arrangement, number of chronic diseases.

In terms of gender, there were significant differences of the participation rates for smoking and alcohol drinking: the smoking rate for male was 45% compared to 13% for females, while the alcohol drinking rate was 8.8% for males compared to 1.1% for females. On the other hand,

89.8% and 0.7% of the elderly had had a BP check-up at least once and the flu vaccination in the last year, respectively. About 81.7% of the elderly had had a health check-up within the last 1-2 years (**Table 3**).

Table 3 Participation rate of health promotion behaviors (N = 410)

Behavior	Yes		No	
	N	%	N	%
Smoking cessation	352	85.9	58	14.1
Alcohol abstinence	388	94.6	22	5.4
Exercise	265	64.6	145	35.4
Low salt diet	284	69.3	126	30.7
low fat diet	286	69.8	124	30.2
Drinking milk, consumption of dairy and meat	315	76.8	95	23.2
consumption fresh vegetables and fruits	310	75.6	100	24.4
BP check-up	368	89.8	42	10.2
Flu vaccination	3	0.7	407	99.3
Health check-up	335	81.7	75	18.3

Discussion

The two goals of Healthy People 2010 focus on increasing the quality and years of healthy life for each individual and eliminating health disparities⁽¹²⁾. Caring for older people in the community can be a challenging task for public health nurses. This study investigated the relationship between health promotion behaviors and correlated factors among in Iranian elderly living in west area in Tehran-Iran.

The goals of health promotion behaviors are to maintain function and independence, and improve quality of life⁽⁴⁾. There is some literature to suggest that adults aged 60 years and over benefit just as much from health promotion behaviors, as those the middle-aged⁽⁴⁻⁷⁻¹³⁾. Resnick (2000) categorized health promotion behaviors into two groups: primary health promoting behaviors, for the prevention of disease before it occurs; and secondary health promoting behaviors, for the detection of disease at an early stage⁽¹⁴⁾.

Based on the current research findings, Iranian elderly engaged in approximately three health promotion behaviors, and participation in such behavior was higher for males, younger elderly, and those with higher educational status, independent economic status, who lived with their spouses, who had better Perceived health status to the peer group of elderly and who had more than three chronic diseases. However, the findings about the relations with socioeconomic status are still controversial. The participants of this study engaged in primary and

secondary health-promoting behaviors such as smoking cessation (85.9%), alcohol abstinence (94.6%), and BP check-up (89.8%). The smoking rate in this sample was consistent with that reported for the elderly living in the community⁽¹⁵⁻¹⁶⁻¹⁷⁻¹⁸⁾. The prevalence of alcohol drinking in this sample was less than that commonly reported for elderly in Western countries, but was consistent with that data of Korean studies⁽¹⁷⁻¹⁸⁻¹⁹⁻²⁰⁾. The findings of this study suggest a more objective Perspective on elderly health promotion issues in Iran.

A picture of elderly population in terms of the degree of health promotion practices in this study can be used as the basis for guiding important directions and planning health promotion activities in the community. Certain health promotion activities, such as engaging in regular exercise, moderate use of alcohol, and flu vaccination, are clearly recommended for all Iranian older adults. The first step toward promoting healthy behaviors among the elderly is to set priorities and to encourage older persons to make an informed decision about his or her own health care practices. In the second step, differentiated health promotion programs that consider gender, age, and education should be developed and implemented. Finally, health care professionals should assess the orderly's own perception of their health and identify interventions to improve their health perception. Educational programs that enhance the patient's ability to manage the disease have been found to be effective in fulfilling this purpose⁽²¹⁾. On the other hand, this study had several limitations. First, a cross-sectional design was used to identify the relationship between health promotion behaviors and correlated factors, thereby precluding causality. Future research should use a longitudinal design to understand better the impact of health promotion behaviors on correlated factors. Second, since the instruments used in this study were developed in line with Iranian culture or were based on revised Western ones, it was not easy to compare directly the results of this study with those of previous western studies. In addition, one possible reason for the absence of strong evidence for significant relationships between correlated factors and other health promotion behaviors is that the measures used may not have been sensitive enough to detect the modest difference of health promotion behaviors in the elderly. Caution should be exercised in generalizing these results to the entire population of Iranian elderly because of the convenient sampling method through senior centers and public health centers. The current study focused only on health promotion behaviors and correlated factors of Iranian elderly. In conclusion, health promotion is an important outcome that is intricately linked to the goals of nursing. The literature Abounds with references to health promotion behaviors, whereas there is little research on the correlates with health promotion behaviors of elderly populations. The current study contributes to the expansion of

the coherent body of knowledge about health promotion behaviors, which is essential for health care professionals and others who work with older populations. Health care professionals should further facilitate health promotion behaviors through formal health Promotion programs which focus on regular diet, exercise, and regular physical check-ups to enhance the health promotion behaviors of individual elderly and to improve the overall health among community.

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Original Contribution/Clinical Investigation

Self-efficacy and caregiver strain in Alzheimer's Caregivers in the City of Tehran

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Abstract

Introduction: The purpose of this study was to examine the relationship between self-efficacy and caregiver strain in family caregivers of persons with Alzheimer's disease.

Materials and methods: A descriptive, correlational research design was used, and a convenience sample of 81 caregivers was surveyed. Descriptive statistics were used to examine selected caregiver demographics. Statistical analysis included bivariate correlations using the Pearson product-moment coefficient correlation. The study's research question was as follows: What is the relationship between self-efficacy and caregiver strain? It was hypothesized that there would be an inverse relationship between the two variables.

Results: A statistically significance inverse relationship ($R = -0.539$, $P = 0.01$) was found to exist between the variables, thereby supporting the study's hypothesis.

Conclusion: Findings implicate the need for further investigation and development of supportive relevant caregiver intervention strategies.

Key words: caregiver self efficacy, caregiver strain, Alzheimer's.

Introduction

During the 20th century the proportion of older persons continued to rise, and this trend is expected to continue into the 21st century. For example, the proportion of older persons was 8% in 1950 and 10% in 2000, and is projected to reach 21% in 2050^[1].

60% of this number would live in developing countries and unfortunately these societies are not prepared to en-

counter the ageing phenomenon and its social, economic and medical consequences. Statistics show Iranian older persons numbered 6.6% in 1996 and 7.8% in 2000 and is projected to reach 10% in 2020^[2].

In recent decades there has been increasing focus on the situation of family members. It can be assumed that the responsibility of family members to care for their sick relatives will increase in the future^[3].

In Iran, dutifulness to parents and grand parents and

extending kind and respectful treatment to older people in general are among the basic values. Because of this, most elderly people continue to enjoy home care, within their family homes^[4]. Care giving research within the context of Alzheimer's disease (AD) has emerged as a major focus of empirical investigation. This focal attention is explained by growth of the aged population, the increasing incidence of dementia with age, and the emphasis on community versus institutional care. By the middle of this century, the number of persons with AD could range from 11.3 million to 16 million^[5].

In the early 1980s, the term "family caregiver" began to be used to describe family members who were caring for an elderly person in their family home. Family care giving has come to the forefront for two major reasons: increasing number of persons who live longer and who have chronic illness for a longer period of time; and changes in the health care delivery systems^[6]. Research findings have consistently confirmed that caring for a family member with Alzheimer's dementia (AD), is fraught with stress and often results in tremendous strain among caregivers.

Caregiver strain, the most widely studied caregiver outcome, is conceptualized as the physical, emotional, social, and financial hardships experienced by family members in providing care to persons with AD. Although a plethora of care giving research exists, empirical data related to the spiritual dimension of AD care giving and care giving outcomes, namely caregiver strain, are scant. Family caregiver's burden can be classified as subjective and objective. Objective burden relates to disruptions in family life caused by the patient's illness, activity restrictions, time spent on types of assistance and tasks, and financial resources expended. Subjective burden patients to the amount of felt strain experienced by the family member in areas such as emotional status, financial and work domains^[7].

Self efficacy has been conceptualized as a person's belief about her or his ability to organize and execute courses of action to manage given situations. Self efficacy beliefs have diverse effects on physiologic functioning: they (a) determine whether coping behaviors will be initiated, how much effort will be expended and how long effort will be sustained in the face of obstacles and adverse experiences, and (b) affect vulnerability to emotional distress and depression. The self efficacy model has been widely used in research on chronic stress and coping, this construct has recently been applied to help explain the experiences of family caregivers of persons with dementia^[8-9].

The purpose of this study was to examine the relationship between self-efficacy and caregiver strain. The following research question was addressed: What is the relation-

ship between self-efficacy and perceived caregiver strain? The study's hypothesis was as follows: There will be an inverse relationship between self-efficacy and caregiver strain.

Materials and methods

Using a cross-sectional correlational research design, this study examined the relationship between self-efficacy and caregiver strain in family caregivers of persons with AD. Approval was obtained from the University of Social Welfare and Rehabilitation Sciences (USWR) and Iranian research center on aging (IRCA). Permission to include participants was granted by the Iranian Alzheimer's Association as an active non-governmental organization.

The convenience sample consisted of 81 participants meeting the following inclusion criteria: 1) able to speak Persian; 2) had assumed the caregiver role for at least 6 months; 3) at least 18 years of age; 4) being the primary person providing care for a community-dwelling, non-institutionalized relative diagnosed with AD or a related disorder; and 5) family member of care recipients. Primary family caregivers were identified as relatives (non-professional, informal, unpaid) who were most responsible for the day-to-day decision-making and care of the impaired family member or care recipient.

Participants were included from the Iranian Alzheimer's Association. A questionnaire containing a consent form, and research instruments was distributed directly to each person who consented to participate in the study and who met sample criteria. Participants were asked to read and sign the consent form, complete the questionnaires, and return them directly. Questionnaires were completed by the researcher for illiterate persons, by structured interview based on items from the questionnaire. To protect anonymity of participants and for data analysis purposes, research instruments were number coded.

Three instruments were used to collect data: a demographic questionnaire, the Self-efficacy Scale (SS), and the Strain index (SI)^[10]. The demographic questionnaire, developed by the researcher, provided information about the caregiver such as sex, age, educational background, length of time in the care giving role, marital status, employment status, relationship to care recipient, and satisfaction from care giving received family care giving education, perceived about her/his own health.

In this study, the (SS) was used to measure the caregiver's perception of self-efficacy. SS was developed by a researcher based on Steffen et. al. (2002), and modified by experts' ideas in gerontology and geriatric areas, with cultural considerations. This instrument measures self-

efficacy as a complex, multidimensional concept. The instrument comprises 21 Likert items, scored from 1 to 5 points. Responses range from strongly agree to strongly disagree.

The scale consists of positively and negatively worded items designed to minimize response set biases. Total scores are obtained by summing across all items on the scale. SS scores can range from 21 to 105. Another instrument was strain index (SI), which had been developed by Robinson^[11]. The instrument comprises 13 Likert items, scored from 1 to 5 points.

Responses range from strongly agree to strongly disagree. SI scores can range from 13 to 65. Test-retest procedures have been performed to determine reliability of instruments, resulting in reliability coefficients for SS as 0.78 and SI as 0.74. Content validity was assessed by experts' ideas.

Results

Data analysis was conducted using Statistical Package for the Social Science (SPSS) for Windows version 10. Descriptive statistics were used to examine specific caregiver demographics. Frequency, percentage, mean, standard deviation, range, cross-tabulation, were used to analyze descriptive statistics. Pearson product-moment correlation was used to test for linear bivariate relationships. The independent t test was used to determine whether significant differences existed between self-efficacy and caregiver strain mean scores of different groups.

The sample was predominately female (74.1%), married (79%), spouse of elder (69.1%), under high school (48.1%), unemployed (67.9%), living with elder patient at the same home (64.2%), without education on home caring for patient (55.6%), satisfied from care giving (65.4%), bad rating on self-perceived global health (44.4%), perceived emotional distress (43.2%), need for care-giving education at home (30.9%).

Mean and standard deviation of caregiver's age (M=53.41, SD=8.46) and duration of care giving (year) (M=6.98, SD=2.85), and average time of caring per day (hour) (M = 6.9, SD = 5.49) were computed to provide other descriptive information.

The profile of the caregiver's characteristics by race is presented in Table 1.

Table 1: Demographic Characteristics of caregivers (N = 81)

Variable	N	%
Sex		
Female	60	74.1
Male	21	25.9
Marital status		
Married	64	79.00
Not married	17	21.00
Education		
< High school	49	60.5
High school	25	30.9
>High school	7	8.6
Employment		
Employed	26	32.1
Not employed	55	67.9
Relationship to care recipient		
Reside in same household	52	64.2
Reside in different household	29	35.8
Satisfaction from care giving		
Yes	53	65.4
No	28	34.6
Received family care giving education		
Yes	36	44.4
No	45	55.6
Perceived about her/himself health		
Good	13	16.00
Moderate	32	39.5
Bad	36	44.5

The independent t test didn't determine significant differences between scores of groups based on sex, employment, marriage, relationship to care recipient, satisfaction from care giving, and received family care giving education in self-efficacy and caregiver strain. On the other hand, there were significant negative relationships between SS and CS with duration of care giving (month), and positive relation with age of caregivers and average time of caring per day.

The study sample revealed a mild to moderate level of strain (M = 39.43, SD=13.97), with scores ranging from 17 to 65, and almost high level of self-efficacy (M = 66.96, SD = 27.02), with scores ranging from 29 to 106.

Pearson product-moment coefficient of correlation (Pearson r) was used to examine the relationship between self-efficacy and caregiver strain and to test the hypothesis that suggested an inverse relationship between the 2 concepts. Selection of this measure was appropriate because it provided the following information about the data: the nature of the linear relationship (positive or negative) between the 2 variables and information concerning the strength or magnitude of the linear relationship. An alpha level

of .05 was selected as the level of significance. A statistically significant negative or inverse relationship ($r = -0.53$, $P = .01$) was found to exist between the self-efficacy and caregiver strain, thereby supporting the study's hypothesis that self-efficacy reduced caregiver strain (Table 2).

Table 2: Pearson Product-Moment Correlation Coefficients for self efficacy (SS) and Caregiver strain (CS) (N = 81)

Study variables	ss	cs
SS	1.00	-0.539
CS	-0.539	1.00

P=0.01

Conclusion

The predominately female sample in this study is consistent with trends in AD care giving indicating that caregivers overwhelmingly tend to be women. The longer average life span for women, demographics of the aging population, and societal role expectations of women all contribute to these findings. Most of the caregivers were spouse of care recipient, and it is predictable that these caregivers are almost elders, and they are at risk of care giving stress.

Most of them were educated, but they didn't receive any education related to care giving to their elder care recipients, and they reported educational needs to assist in taking care of their relatives. Although most believed their health wasn't at a good level, they were satisfied by caregiving. These findings are corroborated by prior studies that have examined differences in demographic characteristics between dementia caregivers^[12].

This study sought to address a gap in the research literature on self-efficacy and caregiver strain in family caregivers of persons with AD. Caregivers reporting higher mean scores on the SS scale reported lower mean scores on the strain scale, reflective of their perception of the caregiver experience as being less strain.

The high overall mean score obtained on the SS may be reflective of the importance of spirituality, cultural ideas and specialty Islamic beliefs in the lives of caregivers participating in this study. These ideas may offer them a coping strategy for responding to stressful situations such as caring for a family member with AD.

This finding is supported by prior research done by such as Porter et al^[13]; their findings revealed that there is not only a moderate level of self efficacy and caregiver strain in cancer patient caregivers, but also there was a negative

association between caregiver self efficacy and caregiver strain for helping cancer patients manage pain. It has also been reported that there were no significant relationships between caregivers' characteristics and self efficacy and strain.

The need to identify variables that may lessen the degree of caregiver strain is greatly needed. Findings from this investigation present a preliminary understanding of the importance of an holistic approach, especially spirituality in Moslem Iranian caregivers in the care giving process and its impact on care giving outcomes, and serves as a precursor to the development of more specialized holistic nursing assessments and culturally relevant caregiver intervention strategies. Yet as a resource, spirituality is often overlooked.

Limitations to this study include use of a convenience sample. Therefore, generalizing is limited pending further studies. Longitudinal studies that examine spirituality and caregiver outcomes over the trajectory of the care giving experience are further indicated.

Taken as a whole, the ageing of the population is a global phenomenon that demands international, national, regional and local action. Any plan of action on ageing and health care for older persons should be built upon not only on the older person, but also on family and community to provide the basis for secure ageing. With increasing numbers of elderly persons today, countries are recommended to review current national policies and strategies regarding the comprehensive care of older persons, and support and education of family caregivers of older people, and promote the retention of appropriate traditional care, and positive social and cultural values.

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Effect of vaginal weight cones on stress incontinence

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ABSTRACT:

Urinary stress incontinence is the most common cause of female urinary incontinence and the second factor for permanent incontinence in old women which effects quality of life and women's health. Cone therapy is an effective intervention for prevention and treatment of urinary incontinence.

Objective: To determine the effect of cone therapy on urinary stress incontinence.

Design: This was a before-after clinical trial without a control group. 60 incontinent women were selected consecutively in Lolagar and educational and medical center of Shahid Akbarabadi of Tehran. They were instructed they should use vaginal cones (20 - 70 grams) twice a day, each 15 minutes for 3 months, except during menstruation. Data were evaluated by assessing the number and amount of leakage during stress after cone therapy.

Results: A significant decrease in urine leakage frequencies and volume after therapy ($p < 0.0001$)

Conclusion: Cone therapy is an effective method for urinary stress incontinence. It is recommended that cone therapy be used as supportive treatment for this problem.

Key words: Urinary stress incontinence, cone therapy.

Introduction

Stress incontinence occurs during periods of increased intra-abdominal pressure (e. g., sneezing, coughing, or exercise) and other physical activities.

It is the most common form of urine loss in women and the second most consistent incontinence in older women (Braunwald, Fauci, Jasper, Hauser, Longo, Jameson Zool). Urinary incontinence, as a major health-social problem influences daily activities and social relationships in women. It was an inevitable problem related to aging in the past, but it can be prevented or cured in most cases now.

Female urinary incontinence prevalence is estimated at 45 % in one year. (Walters, Karamu, 1999). In our setting, 10 to 20 % of patients complain of various degrees of urine loss.

The most important risk factors for stress incontinence are: age, race, delivery, menopause, obesity, and smoking. (Walsh, Petik, Vaughan, Wein, 1992) SI is an annoyance condition that effects the health and psychosocial status of patients. For instance, stress incontinence limits

patients' ability to do regular physical activities and exercise. Because these play a significant role in preventing osteoporosis, hypertension, coronary heart disease, depression and anxiety, avoidance of exercise by patients could threaten women's general health. (Ingar, Kari, Trygre, 1999). Stress urinary incontinence changes the lifestyle of the incontinent. They often use a nappy for leakage and depression of urine odour and some women feel excluded. (Moore, Hegar 1377). Medically, they may suffer from primal rashes; feeling pressure in the lower genital tract and UTIs are more prevalent (Walsh et al, 1992).

SI is cured by non-surgical and surgical treatment, but basic treatment is strengthening pelvic floor muscle (Ryan, Berkowitz, Barbien, Daunraif, 1999). Cure rate of pelvic muscle exercise was reported from 24 to 84 percent in literature. Kegel believed there are degrees of levator ani musculature weakness in SI patients (Tranagho, Mc Aninch, 2000).

However, pelvic muscle training could be performed as Kegel exercise with or without aid instruments (Berek, Adashi, Hillard, 1996). One of these instruments is the vaginal cone. The great advantage of cones is that they cover the spectrum of muscular contraction mechanisms

for example strength, frequency and duration of each contraction (Fisher, Linde 1994). Weighted vaginal cones are 6 cones, of the same shape and different in weight.

While the women exercise with cones step by step, from lighter to heavier cones, the compliance and strength of muscles would be increased. Incontinent women may avoid complaining of urine loss because of fear of surgery, therefore, providing non-surgical methods of treatment like pelvic floor exercise and aids to patients could help them, especially those with mild and moderate stress incontinence. (Ryan et al 1999).

This study's objective is determining effectiveness of using vaginal cones in treatment of SI. Our hypotheses are:

1. Cone therapy decreases urine loss frequency.
2. Cone therapy decreases the amount of leakage following stress.

Materials and methods

This study was approved by the Institutional Review Board at Medical Science University, Iran. All women signed consent forms before participation.

In this study, the subjects were selected from patients referred to the gynecology and health clinics in Lolagar and Shahid Akbar Abadi Hospital of Tehran in 1380 _ 81.

Inclusion criteria were being literate, having telephone contact, Iranian nationality, and a history of one recurring SI episode in a month. Inclusion criteria included indication for surgical management, severe pelvic organ prolapse, infectious disease, neuralgic disease, antihypertensive and diuretics drug users, smokers, pregnancy and women 6 weeks after delivery, virgins, having a history of pelvic surgery in recent years and having contraindications for using vaginal cones.

Current study was an after-before clinical trial without a control group and consecutive sampling occurred for a month. The sample number was 60 women. However 7 patients were excluded for some reasons (e.g., senility and allergy to plastic cones, virginity, etc) during the study. All subjects should undergo urine analysis and culture and pap smear before introducing them to the study. Subjects must attend 3 educational and clinical sessions prior to commencement of cone therapy. This practice was done with a midwife. In the first session, a summary of cone therapy and stress incontinence was delivered by the midwife. Also, cones were shown to participants. In the second session, a summary of the physiology and anatomy of the female lower urinary tract and pelvic organs and structure, and vagina, were explained by that midwife with the aid of molage, pamphlets, posters and

cones.

In the third session, cone therapy was explained to the subjects, then the patients received it and used it in the clinic, assisted by a midwife.

The subject should be filling a stress leakage/frequency chart in one week before cone therapy and one week after termination of it.

The stress leakage was categorized in 3 levels: If the amount of urine leakage following stress in one week, usually was wetting, it was classified as mild. If it was a soaking and overflowing, it was referred to as moderate and severe respectively.

The stress frequency, was also categorized in 3 levels: If the amount of urine lost during stress was 1 to 9 times in one week, it was mild, 10 to 25 times in a week was moderate and more than 25 was severe.

The cones consisted of 6 white plastic cones in different weights and similar shape, with a blue nylon thread from 20 to 70 gram.

Duration of cone therapy was 3 months. The subject must use them two times daily, with each duration 15 to 20 minutes, except during menstruation.

The management commenced with the lightest cone (20 gram).

The woman had to insert the cone in the vagina totally and had to contract the levator ani muscle to avoid cone expulsion from the vagina for 2 minutes. If she was successful, thenext cone was tried. This was sone until she could not keep a cone in her vagina. Then, this cone was suitable for therapy.

Results

The results of this study are demonstrated in tables 1 - 3

Table 1: demographic characteristic of subjects

Characteristics	Mean	SD	Range
Age (yr)	43.02	9.99	19-75
BMI (kg/m ²)	24.40	4.45	20.3-44.4
Parity	4.02	2.04	0-10

Table 2: comparison of mean and SD of SI frequencies before conotherapy:

Frequency / week	Mean +_ SD		Changes
	Before	After	
	8.77+_ 10.63	4.04+_ 8.42	_ 4.73 +_ 7.52
Wilkaxon test	P< 0.0001		Z= 5.496

Table 3: comparison of leakage amount following stress before conotherapy and 3 months after it.

Before	Mild		Moderate		Severe		Total	
After	F	%	F	%	F	%	F	%
Cure	15	75	9	31	0	0	24	45.5
Mild	4	20	6	20.7	25	1	11	20.8
Moderate	1	5	13	44.8	0	0	14	16.4
Severe	0	0	1	3.4	3	75	4	7.5
Total	20	100	29	100	4	100	3	100

X2 test p<0.0001 X2 = 11.44

Discussion

In this study, the most significant finding was relative cure in SI frequencies and urine leakage, reduction in complaint of SI disorders and symptoms. In general, the patients suffering from SI were reduced significantly 3 months after cone therapy (p< 0.0001).

For example, 75% of women with mild SI became healthy after cone therapy. Also 31% of women with moderate SI became healthy.

In contrast, no patients with severe urine leakage were cured. Nysten and Cammue (1998) in 60 patients with genuine SI made similar findings.

In our study, about 75% of women were statistical with cone therapy and had good results.

The patients inserted a suitable cone to initiate treatment. If she could not retain it in her vagina without pelvic muscle contraction, she selected I for exercise.

She must continue exercising with the same cone until she could hold it by contraction. If she could retain it, she should change to a heavier cone. For example cone 2 to cone 3.

These activities should be done in 3 months except during the menstrual period.

Each subject completed a questionnaire showing SI leakage and frequency during one week after cone therapy .

The comparison of the continuous variables in the study group was carried out using the Chi-square and Wilcoxon

tests to evaluate leakage and frequency changes, respectively. The level of statistical significance was set at P= 0.05. Data analysis was performed by SPSS software.

Results

Of 60 patients who commenced treatment, 53 completed the course of therapy and several failed to attend because of vaginitis (3 cases), severe burning (2 cases) and others were disinterested in applying cones.

Demographic data shown in **Table 1** revealed that women with SI were significantly older than the other sample (68.3 women older than 40 yrs vs 31.7 %) only 3.3 % of samples had academic education and 95% were housewives and 88.1% of patients never practiced pelvic muscle exercise.

In **Table 2**, the clinical findings of gynecological examination are shown.

The frequencies of pelvic organ prolapse is 96.7 %. Most of cases stated therapy with cone 1 (20 gram weighted) which was the lightest one and only 3.3 % started with the 70 gram weighted cone.

The percentage improvement for the primary outcome measures is shown in **Table 3**. For the entire group the number of incontinent episodes decreased.

The percentage of complete improvement in urinary leakage was 45.3 %, while mild, moderate and severe levels of urinary leakage were 20.8, 16.4 and 7.5 percent, respectively after 3 months.

Discussion

Ageing and menopause are two tisk important factors of SI. Prevalence of SI increases with aging. In more than five years, it increases up to 30 %. Ageing is associated with bladder capacity, urethral sphincter muscle cells volume and numbers reduction and residual volume of urine increasing. It seems these factors predispose older women to suffer from SI.

Cone therapy is less invasive than surgery; could be performed by the patient at home without disrupting home life, and is considerably less expensive and may be as effective as surgical correction especially in old women.

In our study the majority of cases were premenopausal and menopausal women. This innovative approach to pelvic floor exercises by cone therapy is an advance in our management of stress incontinence in the premenopausal and menopausal women who are aged patients, which we have assumed to represent. In the present study the main findings were relatively important and in some cases completely cured patients suffering SI signs and symptoms. Generally, frequency of sufferers from SI after

conotherapy were reduced. The cone test results showed, (4.03 +- 8.42) of stress incontinence reduced significantly. ($p < 0.0001$, $Z = 5.496$).

Otherwise, leakage amount was reduced significantly. ($P < 0.0001$, $X = 11.44$). 45.3 % of patients.

Hendrickson reported that 89% of women were subjectively improved and Castledon et al noted improvement in 74% of 19 incontinent women who practiced pelvic muscle exercise.

Pelvic floor physiotherapy is an important part in stress incontinence management.

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Epilepsy in aged people: an introduction to diagnosis and treatment

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ABSTRACT:

Old age is the most common time in life to develop epilepsy. Diagnosis and treatment of disease in elderly people needs special capabilities. There is no exception for epilepsy in this regard. According to research a high incidence of convulsion in aged people is increasing. Average life expectancy at birth has increased by 20 years since 1950, to 66 years and is expected to extend a further 10 years by mid-century.

This demographic triumph means that the number of older people will increase from about 600 million in 2000 to almost 2,000 million in 2050. The provision of both health and social care to older people is a necessity.

Incidence of epilepsy in the elderly (over 80 years old) is 140 in 100,000. Diagnosis of this disease is so important in old age people because problems such as Transient Ischaemic Attack (T.I.A), cardiovascular problems, and transient confusion in patients with dementia, neurogenic syncope, and Transient Global Amnesia (TGA), can mimic or be feigned by it. Sometimes the picture of symptoms is different between young and older persons; and may even appear as non-convulsive status epilepticus (NCSE). On the other hand, senile changes that cause epilepsy in elderly must be subject to further studies.

Treatment and selection of drugs in elderly people needs special consideration. Different changes such as metabolic changes, changes in brain tolerance to drugs and side effects, changes in function of bodily organs, associated diseases and consumption of various drugs at the same time, provide many challenges during the treatment process. The knowledge regarding the importance of epilepsy in elderly is increasing. Nowadays, senile affairs and the problem of elderly people is regarded seriously and consequently there is hope that in the near future the knowledge and understanding about effective factors regarding epilepsy in old age persons, such as senile changes of brain and its effect on epilepsy, will be expanded and increase.

Key Words: Epilepsy; Elderly; Diagnosis; Treatment.

Introduction

Average life expectancy at birth has increased by 20 years since 1950, to 66 years, and is expected to extend a further 10 years by mid-century. This demographic triumph means that the number of older people will increase from about 600 million in 2000 to almost 2,000 million in 2050. The provision of both health and social care to older people is a truth.

Nowadays, through use of health/treatment interventions and expansion of science, the age of people in societies has been increased. Due to the increase of age, diseases of this population will have special importance. Old age is the most common time in life to develop epilepsy. Making a secure diagnosis can be difficult, and piecing together an accurate picture of events may take some

time. Neurological diseases have a special place among different diseases in elderly. Epilepsy is one of these diseases that may be developed in this age for the first time, or had been prolonged from previous years to this special senile condition. Epilepsy, besides physical effects, can cause severe psychological impacts in elderly people, and in some ways, affect quality of life. There are reports that incidence of epilepsy, for the first time, in this age range, is increasing (Bergey, 1994). After initial incidence in the first years of life, for a few decades, the incidence up to 65 years of age will be stable. After 65 years of age, abruptly, the incidence of epilepsy will be increased (Hauser, 1992).

Due to organic factors, some of which are indicated below, epilepsy in elderly people can appear as a primary or secondary condition:

- 1) Metabolic disorders such as hyperglycemia, hypoglycemia, hyponatremia, uremia, hypocalcemia.
- 2) Sudden interruption of drugs like barbiturates and benzodiazepines.
- 3) Intaking of drugs which increase the risk of incidence of epilepsy such as phenothiazines, tri-cyclic antidepressants, theophylline, antibiotics.
- 4) Infections: meningitis, pneumonia, urinary infection.
- 5) Trauma
- 6) Cerebrovascular Accident (CVA)
- 7) Dementia
- 8) Neoplasm

Primary or idiopathic epilepsy make approximately 50% of epilepsy in old age people. Incidence of epilepsy in elderly, in different studies, have been mentioned 100-140 per 10/0000 (Hauser, et al, 1993). In one study the incidence of acute convulsion (for the first time) in the age more than 65 years, have been depicted 24-30% (Sanders, et al, 1990). Also, 30% of convulsion in elderly people have status convulsion, which is twice of this condition in lower ages (Towne, et al, 1994). Status convulsion is so important in emergency cases in neurology science.

Diagnosis of epilepsy in elderly people

Because epilepsy in old-age persons can mimic other diseases, its diagnosis is difficult. Unfortunately, in most cases the diagnosis is not correct. Fortunately, nowadays, knowledge in this regard has increased and medical/therapeutic personnel have more information and research on the topic.

The primary evaluation of epileptic persons is the same as for other ages. A precise history must be taken from the patient and his/her family. Exact questions regarding type of seizures and risk factors such as head trauma (hard or soft) should be asked. The incidence of complex partial epilepsy in old ages is higher and after 60 years of age the rate of incidence, is abruptly increased. This is in contrast with the young ages, that is, the generalized, tonic-clonic epilepsy has the highest rate of incidence. On the other hand, it is confirmed that the postictal condition in elderly people differs from young people. This condition is longer in older persons and sometimes its duration is a few days or even many weeks and, mostly presents as loss of memory, behavioural disorder, aphasia or motor (movement) disorder. Incidence of epilepsy with non-specific signs in the elderly, is so important:

- 1) One of these signs is behavioral disorder which is produced intermittently, especially when it is

accompanied by cognitive disorders. Sometimes patients are referred with symptoms of dementia, and because the incidence of it is high in old-ages, the diagnosis of epilepsy may be missed.

- 2) Neurogenic syncope: On the whole, diagnosis of neurologic syncope is not problematic. With case history, and assessment of postictal condition, the type of epilepsy can be differentiated.
- 3) Cardiac diseases include: intermittent arrhythmia such as atrial fibrillation (AF), supra-ventricular tachycardia, Stoke Adams attack can result in syncope. Sometimes syncope is followed by convulsions. After treatment of cardiac disease, the syncope will be treated.
- 4) Vascular diseases of the brain such as T.I.A: In this case accompanying of other neurologic signs like hemiparesis, hemiplegia, hemisensory or parasthesia could be assigned as a diagnosis of TIA. In cases with motor signs the diagnosis is simple but if the sensory signs exist on their own, diagnosis of epilepsy will be difficult (Penfield et al, 1959). In these cases, EEG especially can be helpful and in 10% of cases, will be positive (Devinsky, et al, 1988).
- 5) Drop-attack: In this condition the patient may fall abruptly immediately after standing and sometimes drops objects. Sometimes, falling itself causes injuries.
- 6) Epileptic aphasia: one of the problem in the diagnosis of epilepsy in T.I.A is the epileptic aphasia; especially in patients with the history of C.V.A., at least once (Rosenbaum et al, 1986). The process of producing aphasia can help us to differentiate it from T.I.A. In epileptic aphasia there is no neurological sign. EEG is helpful in this regard.
- 7) T.G.A: Beginning of memory loss is abrupt in these diseases and short term memory is mostly affected. In T.G.A the patient asks the same questions sequentially. The average time for one T.G.A is 7-9 hours (Caplan, et al, 1985). During the attack, EEG is normal (Gloor, in press). Generally, it is presents once in a lifetime, but sometimes it happens more than once.
- 8) NCSE: these attacks are present as mild confusion, amnesia, or severe loss of consciousness. Sometimes it is prolonged, for hours, days or months. The main cause of NCSE is the cessation of Benzodiazepines, so the history of drug consumption can be helpful. EEG is also useful. Opiate consumption can produce and cause NCSE and delay the diagnosis of epilepsy for a long time.

Para clinical affairs

Because the toxic and metabolic aspects are the main and common causes of epilepsy, each patient who has epi-

lepsy for the first time, must be evaluated for cell blood count (CBC), Biochemical tests such as electrolytes, calcium and liver and kidney tests. One of the important tests is EEG which must be performed.

EEG is helpful in the diagnosis of disease and type of epilepsy. In elderly people, there is a change in EEG which is not considered as epilepsy. These changes are: slowing and decreasing of EEG voltage especially if these changes are of the diffuse type.

CT-Scans and Magnetic Resonance Imaging (MRI) are the remaining tests for elderly people with a history of the first (or one) epileptic attack. These are helpful in diagnosis of brain vascular and tumoral problems, which are a common cause of epilepsy in elderly persons.

Assessment of cerebrospinal fluid (C.S.F) is helpful, especially when epilepsy is associated with fever or whenever there is suspicion of the presence of meningitis.

Treatment

The main goal of treatment is prevention of epileptic attack recurring. So, whenever there is any reason for recurrent epilepsy, therapeutics must be commenced. Patients with epilepsy with clear and exact symptoms, such as disturbance in electrolyte concentration, need to take anti-convulsive drugs so that resumption of seizures can be avoided.

According to several factors the probability of epilepsy may be predicted in elderly people with :

- 1) Movement problems after attack (postictal paralysis)
- 2) Partial seizure
- 3) Family history
- 4) Abnormal EEG
- 5) Abnormal neurologic examination.

All of these factors contribute to an increased incidence of epilepsy in such patients.

In elderly people, due to the changes in all systems of the body, drug consumption should be considered carefully; such as:

- 1) Digestive system: Mucous atrophy in this system due to the changes in serum levels and drug uptake.
- 2) Kidney function: function of kidney is decreased after 20 years of age and at 80 years old is halved. So, drugs which are excreted by the kidney may be increased at the serum.
- 3) Liver function: lack of liver function declines and drugs which are metabolized in liver, consequently the serum level of this drug is increased.

4) Increases of lymph tissues in elderly people cause changes in serum levels.

5) Albumin serum decrease: drugs which are bound with albumin (like phenytoin, valproate sodium) show toxicity symptoms sooner.

6) Increase of half life of drugs in elderly people.

7) Brain atrophy and, consequently, production of further sleep status is affected by anti-convulsive drugs.

Drug application

Today there is a vast variety of drugs for treatment of epilepsy in elderly people, especially since 1993 and with the introduction of a new generation of anticonvulsive drugs, new possibilities have been supported. Among various old drugs, carbamazepin, alone or with valproate sodium, provides first step (frontline) treatment. Among the newer drugs, gabapentin and lamotrigine have special importance and the consumption of tiagabine and topiramate is increasing.

Carbamazepin

Carbamazepin is well tolerated by old age persons. It has low side effects. Despite phenytoin it has no great fluctuation in serum levels. According to the physiologic condition of elderly people, consumption of it during 24 hour must be twice only. It is mainly used in partial epilepsy.

Valproate

Valproate has been used for more than 20 years. In comparison with carbamazepin and phenytoin it has a more effective spectrum, and so is useful in primary tonic-clonic epilepsy treatment. It is also useful in secondary generalized epilepsy (Mattson, et al, 1992). Considering its short half life, this drug should be delivered in several doses. Its main side effects are: tremor, weight increase, hair loss.

Gabapentin

Gabapentin is useful in partial epilepsy, and causes increase in gamma aminobutyric acid (GABA) levels of the brain. It has a 9 hour half life and must be used three times per day. It does not cause any change in the outflow of urine, and has no great side effect and can be tolerated well by elderly people.

Lamotrigine

Lamotrigine acts as a glutamate neurotransmitter; and is metabolized by the liver. 10% of it, is discarded by urine. It is useful in treatment of partial epilepsy. It has a 24 hour half life, so, must be used in two doses.

Topiramate

Topiramate is used to assist in treatment of partial epilepsy. It has a 24 hour half life and must be used in two doses; it has low side effects and can be tolerated by

elderly people. The main outflow for it, is via the kidney.

Tiagabine

Specifically, Tiagabine inhibits reuptake of GABA and increases its concentration in the brain. It is useful in treatment of partial epilepsy. It is metabolized in the liver. It has a nine hour half life and must be used with different doses.

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Causes of initiation and promotion of cannabis among local transport drivers in Peshawar

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ABSTRACT

Objectives: to determine the causes of initiation and promotion of cannabis smoking among local transport drivers of Peshawar.

Design: settings and Duration: A descriptive observational study was conducted in the main wagon and bus stop in city, Haji camp bus stop and roadway house Hashtangri, from October 2004 to September 2005.

Methods: A questionnaire was designed in accordance with the objectives of the study. Relevant information was recorded from the respondents on the pre-designed questionnaire.

Results: A total of 400 smoker drivers were included. Of the total 181 (45.25%) were cannabis/marijuana smokers. The age range of the cannabis smokers was from 16 years to 65 years of age with mean age of 35.5 years. The distribution of smoking habits recorded was: cigarette smoking alone 19%, snuffing 23%, cannabis smoking 42.25%, heroin and cannabis smoking 3%. Out of the total cannabis smokers 43% were illiterate and 40% had primary education. Forty three percent had more than ten pack-years of cannabis smoking. The reason for exposure of the respondents was: to compensate fatigue 39.21%, influence from friends 31.49%, parents were smokers 11.6%, pleasure from smoking 8.83%. Ninety percent agreed that cannabis is easily available to them. Fifty seven percent had a poor social background. Thirty four percent had faced road accidents. The effect of cannabis on respondents was: lack of interest 36.46%, decreased memory 19%, depression 16%, sedation 5.52%. Maximum number of the respondents (19.33%) wanted to quit cannabis smoking.

Conclusion: Cannabis smoking is common in local transport drivers. The major causes that are involved in the initiation and progression of cannabis smoking are; driving in young age, poverty, lack of education, easy availability of cannabis, influence from colleagues and smoker parents.

Key word: cannabis smoking, drivers, Peshawar.

Introduction

Cannabis is the derived flowering top of the hemp plant, cannabis sativa. It contains the euphoric element, tetrahydrocannabinol as well as cannabidiol and cannabinol. It is classified as a hallucinogenic. It is prepared as bhung, majun, hashish, marijuana, charas and ganja.⁽¹⁾

Smoking is a major risk factor for coronary artery diseases and lung diseases. According to a WHO report, percentage of people aged 18 year and above, in Pakistan, who smoke is 3.8% offemales, 15 - 30% of males.⁽²⁾ It is well documented that cannabis is the main psychoactive substance detected in the blood of drivers suspected of driving under the influence of psychotropic drugs.⁽³⁾ Smoking of marijuana is significantly associated with chronic bronchitis (cough and phlegm), but it has not been firmly established whether it also leads to a reduction in lung function.⁽⁴⁾

British drug control laws were in force in Pakistan until February 1979 when the President of Pakistan promulgated the Prohibition (Enforcement of Hadd) Order, 1979. Under this Order more severe penalties are prescribed for those who violate the regulations of import, export, manufacture or processing of any intoxicants, the term which refers mainly to products of cannabis, opiates and coca derivatives. The Prohibition Order, 1979 and the Dangerous Drugs Act 1930 were amended in December 1983 to provide for further increases in punitive sanctions for offenders violating drug control laws and even more severe sanctions for offenders who are recidivists.⁽⁵⁾

The present study was therefore designed to determine the causes of initiation and promotion of cannabis smoking among local transport drivers of Peshawar.

Patients and methods

A descriptive observational study was conducted in the main wagon and bus stop in city, Haji camp bus stop and roadway house Hashtangri, from October 2004 to September 2005.

A total of 400 smoker drivers were included. Of the total 181 (45.25%) were cannabis smokers. Only cannabis smokers were further studied.

Inclusion criteria were all smokers who smoke cannabis in cigarettes/or any other ways. Heroin addicts, only cigarette smokers with no cannabis added, those who were snuffing naswars, and intravenous drug users, were all excluded from the study.

A detailed history of the respondents was taken with the

help of a pre-designed questionnaire, prepared in accordance with the objectives of this study. Family history smoking was also recorded from each client. The questionnaire contained preliminary information regarding age, sex, address and education of the respondents. It also contained information about causes of initiation and promotion of cannabis among local transport drivers in Peshawar.

Finally statistical analysis of the data was performed and association of risk factors with cannabis smoking was studied.

Results

Sampling:

A total of 400 smoker drivers were included. Of the total 181 (45.25%) were cannabis/marijuana smokers. Only cannabis smokers were studied in detail.

Age range:

The age range of the cannabis smokers was from 16 years to 65 years of age with a mean age of 35.5 years.

Education of the respondents:

Out of the total number of cannabis smokers 43% were illiterate and 40% had primary education. Fifteen percent had matriculated. **(Table 1)**

Smoking habits of the respondents:

The distribution of smoking habits recorded was: cigarette smoking alone 19%, snuffing 23%, cannabis smoking 42.25%, heroin and cannabis smoking 3%. **(Table 2)**

Number of pack years of cannabis smoking:

Forty three percent had more than ten pack years of cannabis smoking. **(Table 2)**

Exposure of the respondents to cannabis:

The exposure state of the respondents was: to compensate fatigue 39.21%, influence from friends 31.49%, parents were smokers 11.6%, pleasure to smoke 8.83%. **(Table 3)**

Effects of cannabis on health:

The effect of cannabis on respondents was: lack of interest 36.46%, decreased memory 19%, depression 16%, sedation 5.52%. **(Table 4)**

Table 1: Characteristics of cannabis smokers:

Total number of the respondents = 181

Characteristics of cannabis smokers:	Number of respondents	Percentage (%) of total
1. Age wise distribution of the respondents		
16 to 25 years	41	22.65%
26-35 years	108	59.66%
36 to 45 years	24	13.25%
More than 45 years	8	44.19%
2. Education of the respondents		
Illiterate	79	43.64%
Primary education	68	37.56%
Matric education	27	14.91%
Secondary education	7	3.86%
3. Number of pack years of cannabis smoking		
1-5 years	60	33.14%
6-10 years	78	43.09%
11-15 years	31	17.12%
More than 15 years	12	6.62%

Table 2. Smoking habits of the respondents:

Total number of the respondents = 400

Smoking habits of the respondents:	Number of the respondents	Percentage (%) of total
Cigarette smoking alone	76	19%
Cannabis in smoking	92	23%
Snuffing	169	42.25%
Heroin and cannabis in smoking	12	3%
Intravenous drug users	7	1.75%
No smoking habits	44	11%

Table 3: Exposure of the respondents to cannabis.

Total number of the respondents = 181

Exposure of the respondents to cannabis	Number of the respondents	Percentage (%) of total
To compensate fatigue	71	39.22%
Inspired by friends	57	31.49%
Parents are smokers	21	11.60%
For pleasure	16	8.83%
Accidentally	10	5.52%
Neglect by family	4	2.20%
For style	2	1.10%

Table 4. Effect of cannabis on cannabis smoker:

Total number of the respondents = 181

1. Have you encountered an accident?	Number of respondents	Percentage (%) of total
Yes	62	34.25%
No	119	65.74%
If yes (total = 62)		
Minor accidents	38	61.29%
Major accidents	24	38.40%

2. Effects of cannabis on health	Number of respondents	Percentage (%) of total
Lack of interest	66	36.46%
Decreased memory	35	19.33%
Depression	29	16.02%
Sedation	10	5.52%
Excitement	2	1.10%
No effect recorded	39	21.54%
3. Attitude of people towards you	Number of respondents	Percentage (%) of total
Do not know	58	32.04%
Discouraging	107	59.11%
Cooperative	16	8.83%

Table 5. Miscellaneous results about cannabis smokers:

Total number of the respondents = 181

Miscellaneous details about cannabis smokers	Number of smokers	Percentage (%) of total
1. Availability of cannabis		
Easily available	166	91.71%
Not easily available	16	8.29%
2. Monthly income of smokers		
Less than 5000/month	103	56.90%
5-20,000/month	65	35.91%
> 20,000/month	13	7.18%
3. Do you want to quit?		
Yes	165	91.11%
No	18	9.94%

Discussion

The drug abuse control programme in Pakistan is interdisciplinary and progressive. Its main thrust consists of constant vigilance on border checkpoints by law enforcement agencies, developing in-patient and outpatient facilities for treatment and rehabilitation of addicted persons, and a preventive education programme using the mass media and students from higher educational institutions.⁽⁶⁾

In the present study the age range of the cannabis smokers was from 16 years to 65 years of age with a mean age of 35.5 years. Similar findings have been recorded from a study conducted to examine the differences between addicted and non-addicted university students on measures of home environment and peer relations. Participants were 45 addicts and 45 non-addicts with mean ages of 23 years, drawn from three Pakistani universities located in Islamabad, Lahore, and Peshawar.⁽⁷⁾ In our study 43% of the respondents were illiterate and 40% had primary education. Knowledge of smoking is largely associated with education, but opinions on tobacco control are dependent on both smoking status and education. The length of education was positively associated with knowledge

of smoking-related risks.⁽⁸⁾ The exposure state of the respondents was: to compensate fatigue 39.21%, influence from friends 31.49%, parents were smokers 11.6%, pleasure to smoke 8.83%. Frequently reported reasons for smoking (eg. tension and craving) and reasons for relapse (e.g. desire remained high, withdrawal symptoms) were related to nicotine dependence. Current female smokers scored higher on the modified Beck Depression Inventory (0-3) than current male smokers ($p < 0.001$). Oral health issues related to tobacco use, such as gum disease and tooth staining, were identified as factors that might motivate a quit attempt.⁽⁹⁾ In USA attendance at a tobacco industry-sponsored event at a bar, nightclub, or campus party was associated with a higher smoking prevalence among college students. Promotional events may encourage the initiation or the progression of tobacco use among college students who are not smoking regularly when they enter college.⁽¹⁰⁾

90% of our respondents agreed that cannabis is easily available to them. Peshawar is situated near to tribal areas as well as with Afghanistan. These two areas are famous for cannabis corps. Illegal smuggling from these areas might be responsible for the increasing burden of cannabis smokers. In 1984 an estimated 85 per cent of hashish on the illicit market in Canada originated in Lebanon (55 per cent in 1983), 10 per cent in India or Pakistan (31 per cent in 1983) and 5 per cent in Jamaica (2 per cent in 1983).⁽¹¹⁾ The effect of cannabis on respondents was: lack of interest 36.46%, decreased memory 19%, depression 16%, sedation 5.52%. The long-term use of cannabis, particularly at high intake levels, is associated with several adverse psychosocial features, including lower educational achievement and, in some instances, psychiatric illness. There is little evidence, however, that long-term cannabis use causes permanent cognitive impairment, nor is there is any clear cause and effect relationship to explain the psychosocial associations.⁽¹²⁾ Thirty four percent of our respondents had faced road traffic accidents. The prevalence of cannabis (3% is estimated) in the driving population in France is similar to that for alcohol (2.7%). At least 2.5% (1.5% to 3.5%) of fatal crashes were estimated as being attributable to cannabis, compared with 28.6% for alcohol (26.8% to 30.5%). Driving under the influence of cannabis increases the risk of involvement in a crash.⁽¹³⁾

Conclusion

From the data and discussion we conclude that cannabis smoking is common in local transport drivers. The major causes that are involved in the initiation and progression of cannabis smoking are; driving at a young age, poverty, lack of education, easy availability of cannabis, influence from colleagues and smoker parents.

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Considering the measure of observance of safety principles in prevention of events for bed ridden old patients in different parts of curing-instructional headquarters, Shiraz Medical Sciences University in 2005

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ABSTRACT

Introduction: Old age is an unavoidable and a natural process that nobody can deny. But the aging process attends with many physical and psychological difficulties.

The purpose of this research is to specify the measure of observance of safety principles in the prevention of adverse events for confined elderly patients in different parts of the curing-instructional headquarters, of Shiraz Medical Sciences University.

Articles and methods: In this investigation a questionnaire was provided consisting of 77 questions on the basis of design purposes. After specifying its scientific credits, the hospital's situation was assessed in connection with the measure of observance safety principles in prevention of adverse events for confined elderly patients. The study method was in the form of a descriptive-cross-sectional and observational study and elderly patients confined to bed are the study group. The gathered information was analyzed via checklists and observations by SPSS software.

Conclusions: Summary of research obtained showed that the entire hospital confines elderly patients to bed. The measure of observance of safety principles had been in Namazi hospital 62.5%, in Chamran hospital 54.5% and in Faghihi hospital 36.2%. Namazi hospital and Faghihi hospital have the most and the least safety, respectively. In considering aspects of patients in wards, the measure of observance of safety principles specified: Bathroom situation, W.C situation, stairways, floors, windows, danger bell, elevators, and transport means in every ward of the hospitals.

Discussion: Conclusions showed that regarding the safety situation in different wards of curing-instructional hospitals of Shiraz Medical Sciences University and the elderly patients confined there, all aspects were lower than accepted standards, except Namazi Hospital. Some recommendations are put forward regarding observance of safety principles to prevent adverse events for confined elderly in hospitals.

Keywords: Safety principles, events, confined elderly people.

Introduction

Old age is a common biological process for all living creatures. In fact all of us begin to age when we are born. We can't stop or reverse this process but it can be delayed with correct attention.

Deficiency and debility in old age can be prevented or minimised with strategies and attention.⁽¹⁾

Because of the ever-increasing growth of the population

above 65 years, consideration of hygiene and health of the elderly has special importance.⁽²⁾

Security and safety is essential for every person and all centres such as perimeters of working houses, society and curing centers should heed safety information.

All people are exposed to danger and age specific observance of safety points is required.⁽²⁾

Although old people have more experience with their environment, disease or grades of injuries can increase the

danger of adverse events in old people. This group of ten was liable to fall or collapse, which is a major problem, and a cause of death in old people. Mortality from falling increases with the rise in age. The possibility of falling or collapsing for old women is more than in old men which accounts for higher female representation in this age group. Investigations show that more than 1/3 of falls or collapse in old people happen because of the necessity to urinate.⁽⁷⁾

From diseases and events, 1/5 old people in the course of last year were studied and a few less than these were confined to bed as the result of diseases and events.⁽⁵⁾

The local hospital is crowded, and full of stress. Hospitals should operate like a hotel and staff should undertake responsibilities in securing safety for patients.⁽⁸⁾

If people enter an environment or a society in which they don't have any information about particulars, or social orders of the environment or society, they will feel insecure. The hospital environment is for old patients, a strange environment and will therefore cause old patients to feel insecure and watchful whereas the hospital has a duty to create a secure and quiet environment, to obtain physical and psychological security of patients.⁽⁶⁾

When confined to bed old patients in hospitals should, along with their attendants, get acquainted with the whole part of hospital, and it should be explained to them about making use of places such as bedrooms, corridors, W.C and bathrooms.⁽²⁾

To distinguish situations that can precipitate an event is essential, therefore old patients must be watchful of any kind of activity that can cause injury or any object that can cause an adverse event. Also they should consider the patient's environment in regard of any dangers, such as bare electricity wires, stools that have settled in unfit places, slipperiness of floors and any condition that can cause accidents.⁽⁷⁾

One standard in the prevention of adverse events is to have patient environments similar: e.g. patient bed, ward lighting, danger bell, wheel chairs, stairs, W.C, bathroom, patient environment, clothes, the table, sleep-light, elevator and safety vest.⁽⁷⁾ In accordance with accomplished investigations 75% all of events that occur for old people, happen in the home environment. Moreover, old people use hospital services and health services more than other age groups. The most important events for confined old patients consist of: falling and electrocution, with falling or collapsing the most prevalent kind of event.⁽⁸⁾

The United Nations organization statistical yearbook outlines that in Argentina, America, France, Germany

and England old age ratio to population is more than 12% while in Chile, Paraguay, Turkey and Singapore it is between 7 and 12% and in Algeria, Egypt, Senegal, Bangladesh, Indonesia, Iran and Pakistan it is less than 12%. The biggest ratio of elderly population is in west European countries and the smallest ratio in African and Asian countries. The ratio of elderly population in Iran is 5.4% of the whole Iranian population.⁽³⁾

Researchers show that adverse events are common for confined patients in hospital wards, but any statistics of these events are not available and there are no measures in place for prevention of these events. In regard to the above subjects, education is important in this connection and will decrease the likelihood of adverse events from taking place.

Article and methods

The method employed was a descriptive-cross-sectional and observational study and the study population is old patients confined to bed wards in curing-instructional headquarters of Shiraz Medical Sciences University, particularly in three hospitals of curing-instructional (Namazi, Chamran, Faghihi). Therefore the sample consisted of entire wards of confined elderly patients in these hospitals. Tools for gathering of the information according to research purposes by observation and check list, consisted of 77 questions in the fields of: situation of patients' beds (7 questions), room light (2 questions), s. floor (2 questions), s. windows (2 questions), ward corridor (6 questions), s. bathroom (10 questions), s.w.c (6 questions), s. stairs (10 questions), s. elevators (6 questions) and other points (26 questions).

To adhere to scientific principles the last check list was prepared with reference to each of the wards confining elderly patients and then with attention to the questions in the check list and observation from wards. The gathered information was analyzed by SPSS software and then the measure of observance safety in different wards of hospitals in the prevention of adverse events for patients, has been shown in the form of percentages in table format.

Conclusion

The research data showed that in Namazi hospital 24 wards consisted of: men surgery 2 wards, internal heart 1 ward, old C.C.U 3 wards, new C.C.U 10 wards, orthopedic 1 ward, kidney link 1 ward, urology 1 ward, women surgery 1 ward, women internal 1 ward, neurosurgery 1 ward, men internal 1 ward. And in Chamran hospital 6 wards consisted of: men orthopedic 2 wards, women orthopedic 1 ward, neurology 3 wards, neurosurgery 4

wards, jaw and face surgery 5 wards, rehabilitation 6 wards. And in Faghihi hospital consisted of 8 wards: men surgery 1 ward, women surgery 2 wards, C.C.U 3 wards, heart surgery 4 wards, men internal 5 wards, women internal 6 wards, skin 8 wards, pulmonary 7 wards, has been confining elderly patients.

To explain this point it is essential to note that the in the I.C.U ward patients are in a coma and cannot use the danger bell, table and wheel chair and also in the dialysis and ambulance wards because in these wards patients were confined less than 6 hours therefore these wards have not been included. Investigation showed that old patients were confined to bed in the whole curing-instructional hospitals parts of Shiraz Medical Sciences University.

In connection to the safety measures for old people confined in hospital, the conclusion of the study revealed that on average the measure of observance of safety points has been in 14 parts Namazi hospital (62.51%) in 6 parts Chamran hospital (54.5 %) and in 8 parts Faghihi hospital (36.2 %) see Table 1). The measure of observance of safety points in Namazi hospital is more than other hospitals. Investigation also revealed the measure of safety in each of the different parts of the hospitals shows that in Namazi hospital, parts of urology ward with (65 %) and C.C.U, men, with (65 % safety), is the safest part of that hospital. While male wards (58 %) are the most in secure. In Chamran hospital, the female orthopedic ward with 63.5 % safety, is the safest part and male orthopedic ward with 49 % safety, is the least safe. In Faghihi hospital wards male internal ward with 25 % safety is the most insecure and skin wards and male C.C.U wards with 47 % safety are the safest wards.

Table1 - The measure of safety wards of Shiraz Hospitals

Namazi Hos-pital	Chamran Hospital	Faghihi Hos-pital	Situation of safety factors
70	54	39	Bed
100	100	93	Light of rooms
100	100	72	Floor
50	50	50	Windows
55	58	12.5	Danger bell
78	53	25	Measure of transport
33	5.5	16.25	W.C
40	18.5	16	Bathroom
65	36	56	Corridor
100	66	33	Elevators
66	66	54.1	Stairs
100	100	90	Table of food

Detail of our investigations, relating to hospital wards are shown in Table No.1. It shows that in Namazi hospital the measure of observance of safety points, room light, floor, condition of table, and elevators, with 100%, have the

most safety and the situation of W.C 33%, bathroom 40% have the least safety. In Chamran hospital it is similar to Namazi hospital regarding the condition of rooms light, floor, table with 100% safety, have the best safety and the situation of W.C with 5.5%, bathroom with 18.5% and corridor with 36% have the least safety. In Faghihi hospital condition of room lights at 93% have the most safety and the situation of patient's beds with 39%, danger bell safety with 12.5% bathroom 16%, elevators with 33% and means of transport 25% and W.C with 16.25%, have the least safety.

More investigation showed that the situation in Faghihi hospital is the least safe.

Discussion

In the present research we measured the observance of safety principles considered in relation to prevention of adverse events for confined old patients in different parts of curing-instructional head quarters Shiraz Medical Sciences University.

The need for health and safety of both psychological and physical health, and physical safety means that the person should be protected from certain and probable dangers. Patient education to prevent adverse events, is required to avoid fear and agitation. No complicity in the safety needs of patients will cause fear and anxiety.⁽⁵⁾

Hospitals are places where many patients are referred to be cured. Usually the hospital environment is full of stress. Therefore responsible staff should undertake to secure safety of all patients and to distinguish conditions that can cause adverse events, and to create essential and suitable policies.⁽⁸⁾

Farrell in 1990 stated that the most important effective subject in adverse events for confined elderly patients in hospital wards relate to the subject and to the hospital environment and the prevention of adverse events relating to the beds of patients, room lighting, floors, windows, danger bell, W.C, bathroom, corridor, elevators, stairs and situation of tables, which should conform to hospital standards. Fisher in 2002 has done research on environmental events for old people in Maitland Hospital, Australia.

Our results show that because of no attention to safety points in hospitals, 60% of events were connected with falls in hygienic services, 62% related to floor of corridors and kitchen, 60% related to stairs or ladders, 87% related to injuries issuing from falling or collapsing. Wyatt and his partners in 2003 in England investigated falling in elderly patient,s from stairs in house and hos-

pitals then concluded that 53% of these patients died due to falling or collapsing from stairs. Therefore stairs are an important danger for old patients. In the present study the conclusion showed that in Namazi hospital the measure of observance of safety points is more than in Faghihi and Chamran hospitals; also the measure of observance of safety points in different wards of Faghihi hospitals have the lowest safety record. Therefore the probability of danger lurks for elderly patients.

With attention to the results of this study we offer the following advice to provide safety measures in curing-instructional hospitals of Shiraz Medical Sciences University:

1. To advise observance of safety points regarding transport to hospitals, and staff to give suitable instruction about creating a safe environment and the necessary actions to overcome deficiencies.
2. To register adverse events and to investigate the reasons for events and to overcome them.
3. Education of elderly patients regarding how to use beds, and items surrounding the bed and observance of safety points.
4. To provide suitable assistance for movement of elderly confined patients (e.g. sticks and walkers)
5. To investigate and report hygienic services, bathrooms, corridor and stairs which do not meet required standards.
6. To confine elderly patients in separate rooms for control and prevention of adverse events.

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