Prevalence of Suspected Elderly Abuse in Bahrain at Primary Health Care Settings: A Cross-Sectional Study

Nasser S, MD* Malalla H, MD* Jadeed M, MD* Modhi M, MD* Taraif Z, MD*

ABSTRACT
Background: With the global rise of elderly population, the numbers of disabled older people with vulnerabilities requiring more care and support will grow. Elder abuse, a commonly overlooked sensitive issue, is a violation to human rights and public health. The rate of abuse is subject to variation according to region. Pooled prevalence from metaanalysis is 10%. Data in the Middle East and Arabian Gulf region (including Bahrain) are lacking.

This study aims at estimating the prevalence of elder abuse amongst elderly attendees of health care centers in Bahrain.

Methods: A Cross sectional study targeting Bahrainis aged 65 years and above who attended health centers in the 4 health regions across the country. A 295 of the elderly sample were interviewed from 12 out of the 27 health centers that were approached. Data was collected across 2 weeks. Written informed consent was obtained and Hwalek Sengstock Elder Abuse Screening Tool was used as a guide during the private interviews. A score of four and above was used to achieves maximum sensitivity and specificity.

Results: The study revealed the estimated prevalence of 5.1% (95% confidence interval 2.6%-7.6%) of elder abuse. Around 16% of the elderly reported history of some form of abuse. No significant differences in abuse status of the participants were observed with respect to gender, age, marital status, education level, income, living arrangement, and employment status (p>0.05). Having one or more chronic conditions, is associated with 6.9 times increased risk of abuse (p value 0.027, Confidence Interval 2.2- 4.28%). History of previous abuse is associated with 7 times increased risk of being a victim of another abuse (P value <0.01).

Conclusion: With abuse occurring 1 in every 20 elders in Bahrain, a proper protocol should be adopted to screen and intervene. More efforts should be directed towards training caregivers and educating and empowering the elders.

Keywords: Elder abuse, Perpetrators, Elder abuse in Bahrain, Caregivers, Prevalence

INTRODUCTION
The term elderly is usually referred to individuals at the age 65 and above in most developed countries1. With advances in healthcare systems, the elderly population is projected to expand globally2. The amount of individuals aged over 60 is expected to reach 1.9 billion in 2050 around the globe and is expected to triple regionally after 30 years3,4. Along with this rise, the incidence and prevalence of elderly abuse is consequentially expected to rise5. In Bahrain, the elderly population accounts for 4.4% of the population (62,656), with an average life expectancy of 79 years5.

A commonly overlooked sensitive issue in this age group is elder abuse6. Elders abuse is defined by the World Health Organization as “single or repeated acts or the lack of appropriate action occurring within any relationship where there is expectation of trust which causes harm of distress to an older person”7. Around 1 in 6 people aged over 60 have experience some form of abuse in the community setting in the past year7. These figures are even high in nursing homes and long-term facilities8. This rate of abuse is subject to variation according to region7. In North and South America, elder abuse is reported to range between 10% in cognitively intact older adults, 47.3% in elderly with dementia, whereas in Europe it varies between 2.2-61.1%5. The prevalence is estimated to be 36.2% in China, 14% in India, and between 30-43.7% in Africa9.

However, such data in the Middle East and Arabian Gulf region (including Bahrain) are lacking6. The Kingdom of Bahrain is one of the first Arab countries which formed a national committee for elderly decision no. (1) for the year 1984 to form the National Committee for elderly10. Elderly abuse is in violation of Bahrain Act Number 85, which was introduced in 2009 to protect those who were subjected to any type of abuse including neglect with penalties depending on the type of abuse6.

Recognizing and preventing elderly abuse is not only a fundamental structure of public health care, but it is in accordance with Bahraini bylaws and Legislations and Universal Declaration of Human Rights Act 19845,6. Hence elder abuse is a human rights problem, with existing legal obligations to protect the elderly from abuse, making detection and prevention of abuse an important aspect elderly care.

There are 5 types of elderly abuse acknowledged; psychological, financial, physical, sexual, neglect and abandonment7. Nonetheless, it was found that multiple types of abuse occur simultaneously6.

The age group of the abusers was a recognized contributor to certain types of abuse8. For instance, younger to middle aged perpetrators committed more financial abuse, whereas older adults steered towards abandonment7. Identification of traits and possible risk factors of both the abused and the abuser can help detecting abuse and in designing

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interventions for prevention. An interplay of factors exists here. As for
the victims, being physically and mentally unwell, belonging to lower
socioeconomic and educational level increases the risk.

Gender disparities were observed as well, females were more likely to
be abused in general, and to be physically abused by spouses or their
intimate partners. Perpetrators are more likely to be psychologically
agitated, with irritable personality traits, and have a history of alcohol
and substance misuse. Also, shared living situations, complicated
family dynamics, and financial dependency increase the likelihood
of abuse in elders. Socioeconomic factors like having an inheritance
or land rights system were implicated in abusive scenarios. It is
important to note that neither the victim nor the perpetrators may be
aware that some actions are regarded as forms of abuse. Some elderly
did not regard being given medications to ‘calm them down’ or being
confined to bed as forms of abuse.

Further exacerbating the matter, many barriers exist in reporting abuse.
The victims do not know or seek the pathway for help. They might
fear retaliation, feel ashamed or are protecting the abuser as relatives
are the main perpetrators of abuse. Physicians themselves might fail
to recognize abuse or are unaware of the procedural framework or
legislations with regards to reporting. This makes it crucial for health
care professionals to recognize physical signs like bruises and unkempt
appearance and psychological signs like chronic pain. Chronic pain
has been reported to be as prevalent as 30.1% in the elderly participants
subjected to abuse. Psychological manifestations of the problem exhibit
as sleep disturbances, depressed mood, social withdrawal, confusion,
anhedonia and incompliance to medications.

Even though the U.S. Preventive Services Task Force finds no sufficient
evidence to recommend for or against screening for elderly abuse, the
panel did encourage all providers to be aware of the signs and
symptoms associated with abuse and neglect. Several screening tools
have been designed to screen elders abuse, few of which are accepted
to be implemented in the clinical setting which include The Hwalek-
Sengstock Elder Abuse Screening Test (H-S EAST), The Brief Abuse
Screen for the Elderly (BASE), The Caregiver Abuse Screen for the
Elderly (CASE), The Indicators Of Abuse questionnaire (IOA), The Elder Assessment
Instrument (EAI), The Elder Abuse Suspcion Index (EASI©) and The
Vulnerability To Abuse Screening Scale (VASS). Family physicians
have a role in providing continuity of care for the individual throughout
their life cycles, which makes them more likely to report abuse once it
occurs. We acknowledge the highly sensitive manner of the subject,
and we are aware that the problem might be underestimated and under
reported due to the nature of the problem and is often hidden and taboo.
We are aware that screening might only lead to a modest increase in
identification however baseline preliminary data is needed in this
region to test existing policies and the need for action to safeguard this
population. As with other forms of family violence, elderly abuse is a
delicate matter, posing a strong social, self-esteem and shame barriers
to the victims making reporting an impediment with shadowing ethical
dilemma around the subject.

AIM
To Help set recommendations and policies to limit elderly abuse in
Bahrain

OBJECTIVES
- To estimate prevalence of abuse among elderly attending primary
health care in Bahrain
- To study the characteristics of suspected victims of elderly abuse
in Bahrain

MATERIALS AND METHODS
Study Design: Cross-sectional study

Study Population: Elderly participants aged 65 years and above,
living in the community of Bahrain and attending local health centers.

Sample Size: Sample size was calculated based on confidence
interval of 95% with sampling error of 5% and expected prevalence
was assumed to be 25%. This is estimated to be 287 participants, on
the basis that the elderly population comprises 62,656 of the total
population of 142,400 in 2016.

Sampling Technique:
- To ensure consistency and to minimize the risk of bias, interviews
were rehearsed and researchers agreed on a uniform format of
interviewing.
- A multi-steps convenient non probability sampling method was
conducted. A sample of 12 out of the 27 health centers in the 4
health regions across the country were selected.
- Informed verbal consent was sought, the agreed participants
received adequate and concise information about the aim of the
interview and the study.

Inclusion Criteria
- Bahrainis aged 65 years and above
- Attending the health center
- English or Arabic speaker

Exclusion Criteria
- Acutely unstable participants.
- If caregiver refused to leave the elderly alone

Settings: The data collection was held over a period of ten working
days. The research team from the trained family medicine residents
interviewed the recruited elderly participants in a face-to-face manner
over the morning and evening working periods.

There are no geriatric clinics in Bahrain, randomization in selection
was not feasible, as such the researchers targeted participants at the
waiting area of the health centers out of convenience. Questionnaires
were used as a guide to be delivered in the form of an interview in a
simple uniformed language by an individual conducting the research in
a quiet and private environment, without the presence of caregivers to
decrease the reluctance to report possible abuse. To be consistent, the
researchers who delivered the survey practiced asking the questions
in a systematic manner to limit variation. Each interview took
approximately 15-30 minutes. Elderly participants were encouraged
to talk liberally.

The interview was followed by documenting the demographic
characteristics and high-risk factors for abuse including age, sex,
marital status, education level, living arrangement, employment,
income and financial dependency, and psychological health (including
comorbid status) and a prior history of abuse to avoid observer bias.

Tools: The Hwalek-Sengstock Elder Abuse Screening Test (H-S
EAST) is the tool selected to measure abuse in our study. (Appendix
2) H-S EAST is used as a screening tool in health and social service
agencies to identify persons who may be at risk for abuse. It consists of
15 questions and has 3 conceptual domains:
1. Characteristics of the elder that make him vulnerable to abuse (items 1, 3, and 6) 2
2. Overt violation of Personal rights and Direct Abuse (items 4, 9, 10, 11, and 15)
3. Characteristics of potentially abusive situations (items 2, 5, 7, 8, 12, 13 and 14)

Scores three and above are indicative of individuals that are at high risk of being abused, neglected or exploited13. A score of four and above achieves maximum sensitivity and specificity value as such it will be used in our study13. H-S EAST correctly identified 75% of elderly who were abused in a control trial14. It has been validated in Turkey which shares some of the cultural and religious values in Bahrain15. The permission to use H-S EAST was obtained from the author Melanie Hwalek.

Since there is no Arabic version of the H-S EAST questionnaire, it was translated by an expert and a naive translator and was pilot tested on a group consists of 5 elderly participants. It is backward translated by an expert to ensure that translation was accurate. Duration of the interview on the pilot test took around 15 minutes per subject.

**Outcomes**: The primary outcome is to estimate the prevalence of elderly abuse in the community of Bahrain. Also, risk factors for abuse in the studied population will be studied when present.

**Ethical Consideration**: The study was conducted with adherence to the fundamental ethical principles of informed consent, confidentiality, beneficence, non-maleficence and justice16.

Owing to the sensitive nature, the questionnaire was conducted in an interview format, in a setting that ensured the individuals privacy without the presence of the caregiver.

First of all, participants were individually asked to participate in the study through obtaining a written informed consent after being provided with brief summarizing information about the aims and objectives of the research and assured confidentiality. In the case of refusal to participate, autonomy was respected, and the interviewer provided him or her with relevant information for assistance. In the process of informed consent, participants were informed that ensuring their safety while respecting their autonomy is of utmost importance. If abuse is suspected, participants were offered to follow local protocols to safeguard them. If the participant agrees, a social health care worker, and the head primary care physician were involved as well. Also, a safety plan was discussed with the participants and the contact number of social workers in each responsible health care center was provided. All participants were treated equally (Figure 1). The study was conducted in accordance with the declaration of Helsinki.

**Statistical Analysis**: Data was entered in Excel data sheets (Microsoft Excel, 2013). The principles of descriptive statistics in terms of means, standard deviations were used for continuous variables. Frequencies and percentages were computed for categorical variables. Data was analyzed using Statistical Package for Social Sciences with Chi Square (X²) tests, Fisher’s Exact Test, and Logistic regression models (IBM SPSS Statistics 23.0, Windows, 2012) to determine the possible risk factors that could affect abuse. Presence or absence of abuse by score of more than 4 in the scale was taken as dependent variable, while gender, age group, marital status, income, chronic diseases, and physical disability were taken as independent variables. The results of logistic regression were showed as relative risk (odds ratio – OR) and 95% confidence interval (CI). A p<0.05 was accepted for significance.

**RESULTS**
A total of 427 elderly were approached as study subjects with a refusal rate of 27.3% (111 elders; 5 of which were refused by the caregivers themselves). The mean age (SD) of the total study subjects was 72.87 (±6.70) years and the very old age group (80 and above) comprised 61 study subjects with maximum study subjects (79%) being less than 80 and more than half were male (60.7%).

Figure 1: Flow diagram showing recruitment of participants in study

Majority of study subjects were literate (78%). More than two thirds of elderly participants were financially independent (73.6%), with 18% that relied on financial aids from family members, 13.9% benefited from government aids, and less than 1% on charity (0.7%). With regards to employment, majority (55.3%) of subjects were retired, 38% unemployed with 6.8% still actively working.

Majority of the elders were currently married (71.9%); about one-fifth were widow/ widower (22.7%) with majority living with spouse and children (62%) and (7.8%) of subjects were living with other caregivers, which includes either housemaid or other distant relative. Only (3.4%) of subjects were living alone. Among study participants (89.5%) reported that they had at least one chronic morbidity. Of the interviewed elders, 82.4% were physically independent of the remaining who used instrumental aids 6.8% needed wheelchairs to get around.

By Hwalek score, 5.1% (15) subjects were currently subjected to abuse of the sample population (95% confidence interval 2.6%-7.6%). Of these subjects 93% (14) had a history of previous abuse. It is important to note that the majority of the perpetrators were amongst the nuclear
family, most subjects were their own children (73%), only 3 were by the housemaid. In some cases, there were more than one perpetrator involved, all were family members.

Table 1: Descriptive statistics for the Hwalek-Sengstock Elder Abuse Screening Test

<table>
<thead>
<tr>
<th>Question</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you have anyone who spends time with you, taking you shopping or to the doctor?</td>
<td>34 (11.5)</td>
<td>261 (88.5)</td>
</tr>
<tr>
<td>Are you helping to support someone?</td>
<td>107 (36.3)</td>
<td>188 (63.7)</td>
</tr>
<tr>
<td>Are you sad or lonely often?</td>
<td>230 (78)</td>
<td>65 (22)</td>
</tr>
<tr>
<td>Who makes decisions about your life?</td>
<td>Myself 293 (99.3)</td>
<td>Someone else 2 (0.7)</td>
</tr>
<tr>
<td>Do you feel uncomfortable with anyone in your family?</td>
<td>277 (93.9)</td>
<td>18 (6.1)</td>
</tr>
<tr>
<td>Can you take your own medication and get around by yourself?</td>
<td>8 (2.7)</td>
<td>287 (97.3)</td>
</tr>
<tr>
<td>Do you feel that nobody wants you around?</td>
<td>282 (95.6)</td>
<td>13 (4.4)</td>
</tr>
<tr>
<td>Does anyone in your family drink a lot?</td>
<td>293 (99.3)</td>
<td>2 (0.7)</td>
</tr>
<tr>
<td>Does someone in your family make you stay in bed or tell you you’re sick when you know you’re not?</td>
<td>288 (97.6)</td>
<td>7 (2.4)</td>
</tr>
<tr>
<td>Has anyone forced you to do things you didn't want to do?</td>
<td>291 (98.6)</td>
<td>4 (1.4)</td>
</tr>
<tr>
<td>Has anyone taken things that belong to you without your consent?</td>
<td>285 (96.6)</td>
<td>10 (3.4)</td>
</tr>
<tr>
<td>Do you trust most of the people in your family?</td>
<td>19 (6.4)</td>
<td>276 (93.6)</td>
</tr>
<tr>
<td>Does anyone tell you that you give them too much trouble?</td>
<td>288 (97.6)</td>
<td>7 (2.4)</td>
</tr>
<tr>
<td>Do you have enough privacy at home?</td>
<td>5 (1.7)</td>
<td>290 (98.3)</td>
</tr>
<tr>
<td>Has anyone close to you tried to hurt you or harm you recently?</td>
<td>280 (94.9)</td>
<td>15 (5.1)</td>
</tr>
</tbody>
</table>

(Table 1) shows descriptive statistics for the Hwalek-Sengstock Elder Abuse Screening Test. Majority of the elderly (88.5%) replied “Yes” to “Do you have anyone who spends time with you, taking you shopping or to the doctor?” Almost all participants are independent in their life choices, 63.7% of them are still supporting their adult children.

Descriptive statistics for the subscales (domains) of the Hwalek-Sengstock Elder Abuse Screening Test are illustrated in (Table 2). A large proportion of elderly population (66.4%), were involved in potentially abusive situations. On the other hand, (27.8%) had characteristics that made them vulnerable to abuse whereas (8.5%) of study subjects experienced some form of violation of personal rights and direct abuse.

Table 2: Descriptive statistics for the score and subscales of the Hwalek-Sengstock Elder Abuse Screening Test

<table>
<thead>
<tr>
<th>Subscale</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abused</td>
<td>15 (5.1)</td>
</tr>
<tr>
<td>1. Overt violation of personal rights and direct abuse</td>
<td>25 (8.5)</td>
</tr>
<tr>
<td>2. Characteristics of the elder that make him / her Vulnerable to abuse</td>
<td>82 (27.8)</td>
</tr>
<tr>
<td>3. Characteristics of potentially abusive situations</td>
<td>196 (66.4)</td>
</tr>
</tbody>
</table>

The X² test results are presented in (Table 3). No significant differences in abuse status of the participants were observed with respect to gender, age, marital status, education level, living arrangement, comorbid conditions and employment status (p>0.05). History of previous abuse is associated with 7 times increased risk of being a victim of another abuse (P value <0.01). Moreover, the perpetrators of abuse were children and spouses living with the elder at the same setting (p < 0.05). Also, being physically independent on a wheel chair increases the likelihood of being abused. (P value <0.05)

Table 3: Relationship between sociodemographic characteristics and elder abuse

<table>
<thead>
<tr>
<th>Variable</th>
<th>Not abused</th>
<th>Abused</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65 - 79</td>
<td>224 (95.7)</td>
<td>10 (4.3)</td>
<td>0.205</td>
</tr>
<tr>
<td>80+</td>
<td>56 (91.8)</td>
<td>5 (8.2)</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>110 (94.8)</td>
<td>6 (5.2)</td>
<td>1.000</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>203 (95.8)</td>
<td>9 (4.2)</td>
<td>0.375</td>
</tr>
<tr>
<td>Others</td>
<td>77 (92.8)</td>
<td>6 (7.2)</td>
<td></td>
</tr>
<tr>
<td>Living arrangement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spouse</td>
<td>22 (95.7)</td>
<td>1 (4.3)</td>
<td></td>
</tr>
<tr>
<td>Only Children</td>
<td>177 (96.7)</td>
<td>6 (3.3)</td>
<td>0.042</td>
</tr>
<tr>
<td>Spouse and Children</td>
<td>53 (94.6)</td>
<td>3 (5.4)</td>
<td></td>
</tr>
<tr>
<td>Alone / Other Caregiver</td>
<td>28 (84.8)</td>
<td>5 (15.2)</td>
<td></td>
</tr>
<tr>
<td>Employment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>20 (100)</td>
<td>0 (0)</td>
<td></td>
</tr>
<tr>
<td>Retired</td>
<td>153 (93.9)</td>
<td>10 (6.1)</td>
<td>0.465</td>
</tr>
<tr>
<td>Unemployed</td>
<td>107 (95.5)</td>
<td>5 (4.5)</td>
<td></td>
</tr>
<tr>
<td>Comorbidities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>250 (94.7)</td>
<td>14 (5.3)</td>
<td>1.000</td>
</tr>
<tr>
<td>Yes</td>
<td>55 (94.8)</td>
<td>3 (5.2)</td>
<td></td>
</tr>
<tr>
<td>History of Abuse</td>
<td></td>
<td></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>No</td>
<td>246 (99.2)</td>
<td>2 (0.8)</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>34 (72.3)</td>
<td>13 (27.7)</td>
<td></td>
</tr>
<tr>
<td>Physically independent</td>
<td></td>
<td></td>
<td>0.031</td>
</tr>
<tr>
<td>Yes</td>
<td>234 (96.3)</td>
<td>9 (3.7)</td>
<td></td>
</tr>
<tr>
<td>Walking aid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>243 (94.9)</td>
<td>13 (5.1)</td>
<td>1.000</td>
</tr>
<tr>
<td>Yes</td>
<td>37 (94.9)</td>
<td>2 (5.1)</td>
<td></td>
</tr>
<tr>
<td>Wheel chair</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>264 (96)</td>
<td>11 (4)</td>
<td>0.013</td>
</tr>
<tr>
<td>Yes</td>
<td>16 (80)</td>
<td>4 (20)</td>
<td></td>
</tr>
</tbody>
</table>

Table 4: Types of abuse among study subjects

<table>
<thead>
<tr>
<th>Type of abuse</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>Neglect</td>
<td>21(7)</td>
<td>8(2.7)</td>
<td>29(9.8)</td>
</tr>
<tr>
<td>Financial</td>
<td>14(4.7)</td>
<td>3(1)</td>
<td>17(5.76)</td>
</tr>
<tr>
<td>Psychological</td>
<td>6(2)</td>
<td>9(3)</td>
<td>15(5)</td>
</tr>
<tr>
<td>Physical</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sexual</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Prevalence of Suspected Elderly Abuse in Bahrain at Primary Health Care Settings: A Cross-Sectional Study

In this study, 16% of the elderly reported a history of some form of abuse at some point in their lives, 5.1% had ongoing abuse. Around 10% of the study participants were subjected to neglect, around 5.7% of them experienced financial exploitation, and similarly 5% were psychologically abused. Less than 1% of study participants were physically abused and all those subjects were females domestically abused by their spouses, and in all abuse is no longer occurring. Around 4% of participants experienced two or more forms of abuse.

DISCUSSION

This study pioneers the topic of elderly abuse in Bahrain and the Arab region. The estimated prevalence was found to be 5.1% (95% confidence interval 2.6%-7.6%), which is lower than global pooled prevalence of 10% found in meta-analysis1. This can be attributed to different study settings and application of different assessment tools for detecting abuse. For instance, using the same tool, prevalence in a rural area in Bangladesh was around 11.9%16, thus cultural and regional factors with regard to abuse exist. It is the norm to care for adult seniors in this region, the concept of filial piety is very strong in the Islamic and the Arabian cultures. Hence, majority of the perpetrators of abuse were by a spouse or a child as they were the primary caregivers in these cases. This is in accordance with other studies, the elderly being more susceptible by a nuclear family member as a result of caregiver burden or stress19. Hence, abuse was seen to occur regardless of living arrangements21; an observation also noted in our study. Elders aged 60-79 were found to be 3 times more likely to experience abuse when using Hwalek Tool in Bangladish18. However, this association was not observed in this study. Also, no significant differences were observed between educational level and risk for abuse which is in accordance with other study findings21,22. Like other studies1, employment status was not observed to be linked to abuse.

Elder abuse is an intricately complicated matter. Associations between sociodemographic characteristics and elderly abuse have not been consistent1. Being married was positively associated with abuse in a metaanalysis, yet this relation was not seen in this research1. This could also be explained by cultural norms.

Our study demonstrated that chronic illnesses impacted significantly on elderly people who experienced abuse. It is expected that poor health status demand more of support and care of family members. This can drive pressure on the caregiver increasing burden and stress, which could be responsible for the ill-treatment17,19,20. On the other hand, specific health conditions apart from cognitive disabilities have not been proven to be a risk factor1. Similarly, we have not observed an association between diabetes, hypertension, ischemic heart disease, stroke, psychiatric illness or osteoarthritis and abuse. Also, physical disability seemed to be a risk factor for abuse in other studies, as was observed here20.

Contrary to international data where abuse is more prevalent in females17, the subgroup analysis for gender abuse indicated that there are no gender differences with regards to abuse. Consistent with other studies17, in our study, elder physical abuse was a continuation of intimate partner violence into old age.

Analysis of subtypes of abuse revealed that neglect is far more common in this region than other types of abuse, followed by financial and psychological. Our findings are incongruent with metaanalysis findings17 in which emotional abuse was the most prevalent form of elder abuse. In population-based studies, sexual abuse was the least frequent17. Similarly, sexual abuse was not prevalent as a form of abuse in our study.

A prior history of abuse was found associated with elder abuse amongst research participants. This finding is similar to other research4. It could be explained by the presence of the same stressors or perpetrators in the elderly persons life. Also, abuse tend to be cyclical in nature, where the behavior was deemed acceptable and was further reinforced4.

Majority of the participants reported that no one close to them tried to harm them recently, had enough privacy at home, and no one forced them to do things they did not want to do. This could be attributed to the fact that 79.3% of the sample population were aged 65-79; therefore, they were more likely to be physically able to take care of themselves, and less dependent on caregivers. For instance, the bulk of the elderly participants were able to take their own medications, mobilize independently, and a large sum were financially independent. Though this gives the impression that the elderly in this region are highly autonomous population, 8.5% of study subjects experienced some form of violation of personal rights and experienced direct abuse.

A proportion of the elderly sample answered ‘yes’ to “Are you sad or lonely often” but half of them only answered “No” to not having someone who spends time with them, taking them shopping or to the doctor. All of them argued that their children were busy with their life commitments and they did not view themselves a part of that life. As a result, they were not aware they were neglected. Also, some adults still resided in their parents’ house along with their spouses and children even after marriage but at a separate floor/ in a duplex living format.

In these cases, neglect was elicited when further questions were asked about the elderly’s day to day activity.

An alarmingly large segment of elderly population (66.4%), were involved in potentially abusive situations. For instance, 6% of the sample do not feel comfortable with the individuals residing with them and do not trust them and 4.4% feel that nobody wants them around. Health care providers should be alert to these situations as they might not be overt abuse cases, but it could potentiate future abuse. It should be viewed as a spectrum of personal violation of rights.

It is important to highlight the factors that make the elderly more susceptible to be involved in abusive situations; being physically independent or having a prior history of abuse.

LIMITATIONS

The results of this study should be interpreted with caution; a convenient sample was taken due to the lack of elderly registries and geriatric clinics in Bahrain. Inspection for hidden physical signs of maltreatment was beyond the scope of the study, as such actual physically abused cases could have been missed. Moreover, characteristics of the perpetrators were not included as a variable as the study was from the abused perspective. As such, factors related to caregivers were not assessed; like caregivers’ burden and stress which could be a driving factor towards abuse. Even though an interview format was adopted to establish rapport with the elderly, some elders might still be hesitant to open a sensitive matter. Lastly, this study focused on the elders living in the community able to attend health care centers and did not include those residing in the institutions or that are bedbound which could be at more risk.

IMPLICATIONS

This study is a first of its kind in this region. The results will provide a valuable contribution to set laws, to constitute relevant policies and specific penalties and eventually plan a protocol for elderly care services. Comprehensive multidisciplinary team comprising of
trained primary physicians, social workers, mental health specialists and legal has been found to be most effective. As such we advise establishment of a multidisciplinary team geriatric clinic at the primary care level to build a rapport and to screen the elderly individuals. Primary health care physicians would have an advantage of providing a holistic care to the detected case. The physician would adopt a valid assessment tool, would be able to refer and be involved in the proper management of the elder.

Laws in Bahrain do not override the elder’s autonomy to report abuse. However, barriers to report abuse should be addressed at the community level. First, setting a hotline was found repeatedly efficient to uncover such violations. Secondly, social media should be properly utilized to raise awareness by educating the public, to address both the caregivers and elders themselves regarding what constitutes elder mistreatment, and to advocate self-reporting. Coupling that with home visits have made elders more likely to report abuse both to the police and physicians. Also, providing home visits for at risk individuals and education for their caregiver should be incorporated in the healthcare services. Educational program should encompass the elder’s illnesses, the caregiver burdens, and should provide stress and anger management, and information how to access available services.

Our study is novel in this region, further research should be done to assess the holistic phenomena of abuse; caregivers should be targeted in research, the possibility of causal relationships should be investigated, and institutionalized elders should be included.

**CONCLUSION**

Elder abuse is not that prevalent in this region; however, a proper protocol should be adopted to screen and follow elders in Bahrain. While, clear pathways for intervention are available more efforts should be directed towards training programs, educating the public, implementation of screening tools and multidisciplinary team at geriatric clinics. We suggest further research should be done to explore institutionalized and homebound elders as they are at more risk.

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**Competing Interest:** None

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**REFERENCES**


APPENDIX 1

This survey targets individuals aged $\geq 65$ years old to detect abuse. This survey will be used in a study to gather local data. It will help us understand the scope of the problem in hopes of trying to prevent it. Survey completion will take few minutes. All information gathered and discussed will be confidential.

About this survey:
• Your answers are private and anonymous.
• Your participation is voluntary.

We appreciate your help in this survey and hope you enjoy taking part in it. Thank you for your time and help.

1) Socio-demographic characteristics:

CPR
1) Gender Male Female
2) Age ___
3) Marital status
   □ Single
   □ Married
   □ Widowed
   □ Divorced

4) Highest level of education completed
   □ Primary
   □ Intermediate
   □ Secondary
   □ University/College
   □ Not educated

5) Poverty/financial dependence
   □ Independent income
   □ Depending on
      □ Charity
      □ Governmental aids
      □ support

6) Living arrangement with
   □ Spouse
   □ Children
   □ Spouse and children
   □ Other family member or caregiver
   □ Alone

7) Employment
   □ Employed Job title:
   □ Unemployed

8) Do you have any of the following conditions?
   □ Diabetes mellitus
   □ Hypertension
   □ Stroke
   □ Coronary artery disease
   □ Depression
   □ Bipolar affective disorder
   □ Schizophrenia
   □ Obsessive compulsive disorder
   □ Generalized anxiety disorder
   □ Other, specify:

9) Any history of previous abuse?
   No Yes
   If yes, specify the type:
   □ Physical
   □ Psychological
   □ Sexual
   □ Neglect
   □ Financial
10) Are you able to get around without any help?
No              Yes  
If No, type of help
□ Wheelchair               Walking aid
11) Do you have anyone who spends time with you, taking you shopping or to the doctor?
No              Yes  
12) Are you helping to support someone?
No              Yes  
13) Are you sad or lonely often?
No              Yes  
14) Who makes decisions about your life -- like how you should live or where you should live?
Someone else               myself
15) Do you feel uncomfortable with anyone in your family?
No              Yes  
16) Can you take your own medication and get around by yourself?
No              Yes  
17) Do you feel that nobody wants you around?
No              Yes  
18) Does anyone in your family drink a lot?
No              Yes  
19) Does someone in your family make you stay in bed or tell you you're sick when you know you're not?
No              Yes  
20) Has anyone forced you to do things you didn't want to do?
No              Yes  
21) Has anyone taken things that belong to you without your O.K.?
No              Yes  
22) Do you trust most of the people in your family?
No              Yes  
23) Does anyone tell you that you give them too much trouble?
No              Yes  
24) Do you have enough privacy at home?
No              Yes  
25) Has anyone close to you tried to hurt you or harm you recently?
No              Yes  

APPENDIX 2

THE HWALEK-SENGSTOCK ELDER ABUSE SCREENING TEST*

The Hwalek-Sengstock Elder Abuse Screening Test (H-S "EAST") is a short (15 item) questionnaire for use in health and social service agencies to screen for persons who may be at risk for abuse. It was developed at the request of agencies, which felt that a short test such as this would be useful to them in identifying abused or neglected elders or persons at risk. The EAST is listed below. Also see NOTE following the EAST.

1) Do you have anyone who spends time with you, taking you shopping or to the doctor? [no]
2) Are you helping to support someone? [yes]
3) Are you sad or lonely often? [yes]
4) Who makes decisions about your life -- like how you should live or where you should live? [someone else]
5) Do you feel uncomfortable with anyone in your family? [yes]
6) Can you take your own medication and get around by yourself? [no]
7) Do you feel that nobody wants you around? [yes]
8) Does anyone tell you that you give them too much trouble? [yes]
9) Does anyone in your family drink a lot? [yes]
10) Does someone in your family make you stay in bed or tell you you're sick when you know you're not? [yes]
11) Has anyone forced you to do things you didn't want to do? [yes]
12) Has anyone taken things that belong to you without your O.K.? [yes]
13) Do you trust most of the people in your family? [no]
14) Does anyone tell you that you give them too much trouble? [yes]
15) Do you have enough privacy at home? [no]
16) Has anyone close to you tried to hurt you or harm you recently? [yes]

* The response associated with "abuse" has been indicated in brackets at the end of each item. "Abuse" is associated with a response of "no" to items 1, 6, 12, and 14; a response of "someone else" to item 4; and a response of "yes" to all others.

Note: The EAST is still in its developmental stages and has not been completely tested.
Further tests of its validity and reliability are under way. Consequently, its effectiveness, and limitations for its use are still not completely known. Hence the authors recommend using it only in conjunction with their direct supervision. Professionals who wish to use the EAST are urged to work with the authors of the measure, not only to insure that the measure is being used appropriately, but also to provide further opportunities to test the EAST. Interested parties can contact the publisher for further information: Melanie Hwalek, SPEC Associates, Ford Building.

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