Primary health care physician’s awareness of substance abuse and abuse behavior

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Abstract Objectives: To assess knowledge and attitude of Primary Health Care (PHC) physicians about commonly abused drugs in the community and to assess their ability to detect abuse and abuse behavior.

Design: Cross-sectional descriptive study.

Setting: Twenty-five PHC centers in Riyadh City, Saudi Arabia.

Subjects: One hundred and forty physicians from randomly selected PHC Centers. These physicians participated by filling out a self administered questionnaire.

Main Outcome Measures: Knowledge of main features of substance abuse, reported cases of substance abuse, and attitudes of PHC physicians towards managing this problem.

Results: Sixty-nine percent of PHC physicians are of the opinion that substance abuse is a common and expanding problem. Most participating physicians think that substance abuse is a problem of young males. Although most PHC physicians have a satisfactory factual knowledge about features of dependence, only 23% of them have actually seen a substance abuser in the last 12 months in their practice; giving a prevalence rate of one per 1000. Male physicians in the age group under 30 years and more than 50 years, and those having postgraduate qualifications, were more able to detect abuse behavior. Most commonly reported substances of abuse were: alcohol, amphetamines, volatile substances and heroin. Most of the participating physicians underestimated the role of the PHC system in the management of substance abuse.

Conclusion: Training and further studies are required to improve prevention and early treatment.

Keywords: Substance abuse, questionnaire, PHC centers.

Although substance abuse has been recognized as an international problem and is on an upward trend, the true dimension of the problem is under-estimated. Chemical dependence is a leading cause of morbidity and death in many countries worldwide. In the United States, for example, alcohol alone is thought to be the third largest health problem after heart disease and cancer. Alcohol and other substance abuse affects 8-10 million Americans. Alcoholism is associated with 25% of all general hospital admissions and alcohol abuse and dependence cause an estimated 100,000 deaths annually. The health costs, exclusive of tobacco costs, are estimated at $140 billion per year in the USA.

Although there are few published studies concerning substance abuse in Saudi Arabia, there is a feeling that this problem is not as rare as was first thought.

Early recognition of the problem is an essential step in its management. It is usually primary care physicians who are presented with early manifestation of substance abuse, and therefore they are in an ideal position to prevent its progression. Little is known, however, about the primary care physician’s awareness and knowledge of the problem. On this basis this study was carried out to:

1. Assess the knowledge and attitudes of primary health care (PHC) physicians regarding drug abuse in the community.
2. Assess the ability of PHC physicians to detect drug abuse and abuse behaviors.

Materials and methods A self administered questionnaire was distributed to all doctors in 25 randomly selected Primary Health Care Centers in Riyadh City. These PHC centers represent 44% of all Riyadh centers.

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The questionnaire was developed after a pilot study was carried out involving two PHC centers and 10 physicians. The questionnaires were distributed (to each center and collected) by the investigator himself. The purpose of the questionnaire was to find out the demographic characteristics of the physicians, their opinions about the magnitude of substance abuse and commonly abused substances and the demographic characteristics of abusers. The questionnaire also contained some questions about examining the physician's factual knowledge regarding substance abuse.

**Results** All participating PHC physicians responded (140 physicians) representing 40% of all PHC physicians in Riyadh City. Their demographic data are shown in Table 1.

Ninety-seven physicians (69.3%) were of the opinion that substance abuse was a real problem in the community, whereas 32 of them (22.9%) did not know the real magnitude of the problem.

Alcohol was rated as the most commonly abused substance by 63 PHC physicians (45%) and 17 (12%) of those who responded to the question of most commonly abused substances in the community think that volatile substances come second to alcohol. Heroin was put in the 3rd position by 12 (8.6%) of the respondents, whereas 58 physicians (41.7%) do not know what are the commonly abused drugs in the community.

Ninety-one physicians (65.1%) think that individuals between 15-30 years are at the highest risk of abuse. On the other hand, the majority of the sample (85%) think that substance abuse is a problem of males.

Questions about common features of substance abuse, criteria of dependence, tolerance and withdrawal were answered correctly by PHC physicians achieving a mean proportion of 70.06% with confidence interval 95% (62.3% - 77.6%). Only 54 PHC physicians (38.6%) knew the trade names for the commonly abused substances and only 32 physicians (22.9%) had seen a substance abuser in the last 12 months in their practice with a mean of 2.2 ± 1.24 patients seen by each PHC physician.

Physicians under the age of 30 appear to have the ability to detect an abuser quicker (4 out of 11 (36.4%)) than the age group 50 years or over (3 out of 12 (30%)). Male PHC physicians detected more cases than female physicians as shown in Table 2 (p<0.001). There was no significant difference between the ability of Saudis and

<table>
<thead>
<tr>
<th>Age group</th>
<th>Male</th>
<th>Female</th>
<th>Nationality</th>
<th>Qualification</th>
<th>Experience (Years)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
<td>No</td>
<td>No</td>
<td>&lt; 5</td>
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<td>&lt; 30</td>
<td>6</td>
<td>4.3</td>
<td>5</td>
<td>3.6</td>
<td>10</td>
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<tr>
<td>30 - 34</td>
<td>5</td>
<td>3.6</td>
<td>21</td>
<td>15</td>
<td>19</td>
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<tr>
<td>35 - 39</td>
<td>21</td>
<td>15</td>
<td>26</td>
<td>18.6</td>
<td>35</td>
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<tr>
<td>40 - 44</td>
<td>15</td>
<td>10.7</td>
<td>10</td>
<td>7.1</td>
<td>18</td>
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<tr>
<td>45 - 49</td>
<td>18</td>
<td>12.9</td>
<td>3</td>
<td>2.1</td>
<td>18</td>
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<tr>
<td>&gt; 49</td>
<td>10</td>
<td>7.1</td>
<td>0</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>53.6</td>
<td>65</td>
<td>46.4</td>
<td>109</td>
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</table>

Mean ± SD
38.7 ± 7
Yrs.

(*) Diploma/Master in Primary Health Care or Other Specialty
(△) Significant p<0.05  \(X^2\) test
Table 2: Detection ability by physicians characteristics.

<table>
<thead>
<tr>
<th>Sex</th>
<th>Nationality</th>
<th>Qualification</th>
<th>Years of experience</th>
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<tbody>
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<td></td>
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<td>62</td>
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<tr>
<td>Yes</td>
<td>29</td>
<td>38.7</td>
<td>3</td>
</tr>
</tbody>
</table>

75*       65*       21          119        109        31          45          52          30          13

(* Significant p <0.05, χ² Test)

non-Saudis to detect drug abuse (p value=0.865).

Out of the 32 physicians who had seen an abuser in the last 12 months, 25 (78.1%) mentioned that alcohol was the commonest substance among their patients followed by amphetamines (12.5%), volatile substance (6.3%) and heroin (3.1%).

Regarding the attitude of the PHC physicians towards substance abuse and their opinion about its management, 128 (91%) felt that they had to raise the issue and discuss it with the substance abuser, while 83.6% of them preferred to advise the patient to stop gradually and be referred to a specialized addiction center. However, only a minority 3.6% thought that they could manage the situation on their own.

Involvement of PHC centers in the management of substance abuse was recommended by only 24.3% of participants, whereas 79.3% of the participants thought that the management should be limited to specialized centers and 32.1% thought that involvement of general hospitals might be more appropriate.

An overwhelming majority 136 (97.1%) of participants agreed about the need for PHC physicians for educational courses regarding the problem of substance abuse.

Discussion  The majority of PHC physicians in our sample (63.9%) confirmed the feeling that substance abuse was a real and expanding problem in the community. Most PHC physicians stated that substance abuse is more prevalent in young males (15-30 years) which is similar to local and international studies, and particularly true for volatile substance abuse.5,6,7

Although, the participating samples achieve a satisfactory score in the factual knowledge about substance abuse, only 32 physicians (23%) reported seeing an abuser in the last 12 months, an average of 2.2 abusers per physician. An average of 70 abusers were seen in the last 12 months giving a crude prevalence rate of one in every 10,000 (e.g. an average catchment population for every PHC center is 30,000). By revising the statistics of PHC centers, it was shown that only 23.2% of the catchment population visit their centers monthly, and that 45% of the population are less than 15 years of age (developing country). By considering these factors, the focus will be on the population who present to PHC centers and on the age group at high risk of abuse, which will ultimately raise the prevalence up to 1 per 1000.

It seems that this figure is indirectly speculated and can be subjected to inaccuracy and probably over-exaggeration since it is not clearly shown that the diagnosed abuser fulfilled the criteria of substance abuse or not.

However, early recognition and diagnosis of alcoholism and other substance abuse is troublesome worldwide and is being blocked by several factors. First is cognitive block: physicians lack knowledge of the enormous variety of symptoms generated by such substances. The second block is related to attitudes and values. If a physician thinks that the person with alcoholism has a "moral problem", or is willfully "self-destructive" his, otherwise, powerful sense of caring and vigor of his diagnostic effort may be diminished. The third block consists of communication problems. People with substance
abuse often utilize a dependent, hostile, angry, anxious, labile, irresponsible, misleading or frankly untruthful interaction style, which provokes care givers into unhelpful responses. Fourth: patients who abuse alcohol and other drugs frequently have medical problems either resulting from their addiction (e.g. cirrhosis, pancreatitis, withdrawal symptoms) concomitant with it (e.g. chronic pain syndrome). Fifth: substance abusers may also suffer from other psychiatric disorders (e.g. anxiety, depression), which can mask the symptoms of substance abuse.39

It is shown in this study that the frequency of abuse detection by PHC physicians is relatively higher in age groups less than 30 years and above 50 years. This can be attributed to recent qualification and fresher factual knowledge in the first group, and having more field experience in the second group, or is probably due to other reasons which need more exploration by further works. It is expected that male physicians will see the majority of cases, since substance abuse is much more common in males.

Although statistically not significant, postgraduate qualifications appear to raise the ability of PHC physicians to detect more abusers.

According to the opinion of PHC physicians, commonly abused substances were ranked as follows: alcohol, volatile substance and heroin, but when it comes to the substance of abuse reported in PHC patients, it shows the following order: alcohol, amphetamines, volatile substances and heroin. Ranking alcohol as first abused substance is consistent with Western studies as well as studies in the 3rd World30,11 whereas in a local study, abused substances were arranged as follows (according to the frequency in an outpatient psychiatric clinic): heroin, alcohol, polydrug abusers, benzodiazepines, barbiturates, amphetamines and volatile substances.12

The finding of low frequency of amphetamine and volatile substance abuse in Osman’s study can be explained as self-limited behavior and not usually presented to specialized psychiatric services unless it is associated with polydrug abuse. On the other hand, the sample in the study are patients from psychiatric outpatient clinics who usually pass through many filters in the health system and present with a rather severe form of abuse e.g. heroin and polydrug abuse.

The majority of anticipating doctors felt that the role of PHC physicians should be more active in the management of substance abuse which reflects their positive attitude. Only about a quarter of doctors involve primary health care in the chain of management of substance abuse. However, primary care and speciality treatment for substance abuse disorder should be specifically included in any basic health benefits, rather than be subsumed under some other category such as mental health. It is also stressed that coverage should include a continuum of primary care and speciality services that provide effective treatment for substance abuse disorders.

Further studies are highly recommended in the field of substance abuse in PHC to test our findings and to explore other aspects of the problem in the community.

Acknowledgment I would like to express my sincere thanks to Dr. Mohamed Al-Sekait for his supervision and valuable comments and advice during the preparation of this study. I would like also to extend my thanks to Dr. Abdullah Al-Subaie and Dr. Alwar Sugmar for their advice and assistance.

References

خلاصة البحث:

الهدف: تحديد مدى إدراك أطباء الرعاية الصحية الأولية داخل مدينة الرياض بمشكلة المخدرات وموكلهم في التعامل معها بالإضافة إلى تحديد قدرتهم على التعرف على المدمرين وسلوكهم.

التصميم: دراسة مقطعية وصفية.

المكان: تمت الدراسة في 25 مركزًا للرعاية الصحية الأولية اختيرت عشوائيًا داخل مدينة الرياض.

المعينة: شارك في الدراسة مائة وأربعون طبيبًا، وذلك بملء استبيان أعد خصيصًا لهذه الدراسة.

مقدمة النتائج الرئيسية: معرفة أطباء الرعاية الصحية الأولية بظاهرة مشكلة المخدرات، الحالات المسجلة.

لمرضى المخدرات، مدى ميول الأطباء في التعامل مع هذه المشكلة.

النتائج: كان غالبية الأطباء المشاركين (70.2%) يعتقدون أن مشكلة المخدرات موجودة في المجتمع وآخذة في الازدياد. كما أوضح الغالبية من الأطباء أن الشباب الذكور هم من أكثر الطبقات تعرضًا لهذه المشكلة، وبالرغم من أن غالبية الأطباء لوحظ أن لديهم معلومات نظرية جيدة عن المخدرات وأعراضها فإن 22% منهم فقط شاهدوا متعاطي المخدرات خلال الأشهر عشرة التي سبقت الدراسة. الأمر الذي أعطى معدل انتشار بلغ مريض واحد في كل 1000 شخص.

كما لوحظ أن مقدرة التعرف على متعاطي المخدرات كانت أكثر بين الأطباء الذكور الذين كنوا أعمارهم أقل من (30) عامًا وأكثر من (40) عامًا، كما كانت قدرة التعرف أكثر لدى المحاضرين على مؤهلات طبية علياً. كما أوضحت الدراسة أن أكثر المواد المخدرة استخدامًا هي: الكحول، الأمفيتامينات، المدمنات الطبيعة والهيبنورين.

كما أوضحت الدراسة أن الكثير من الأطباء المشاركين قلقوا من دور مراكز الرعاية الصحية الأولية في المشاركة في حل مشكلة المخدرات.

الاستنتاج والتوصيات: أوضحت هذه الدراسة مجموعة من الاقتراحات والتوصيات المبنية على حاجة العاملين في فئات الرعاية الصحية الأولية لضمان تنسيق الجهود العلاجية والوقائية لمشكلة المخدرات في المجتمع.