



Analysis of Benzodiazepines Utilization Other than Mental Disorder at District Sukkur Pakistan

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Authors' contributions

This work was carried out in collaboration among all authors. Author NK designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Authors AA and TA managed the analyses of the study. Authors SA, ZA and MM managed the analyses of the study and the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

The main objective of this research was to evaluate the prescribing ratio of benzodiazepines in the patients suffering from a disease other than a mental disorder. A prospective cross-sectional study was conducted at 24 different community pharmacies and medical stores of District Sukkur. Participants with age more than 18 years and using Benzodiazepines were included in this study. Average age of the Participants, who were participated, was 38 ± 20 years. From the 177 study subjects who visited the community pharmacies or medical stores for the purchase of

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benzodiazepines 104 were male and remaining 73 were female. From 177 patients 132 were married and remaining 45 were unmarried or widow. It was concluded that the consumption of benzodiazepine drugs is terrifyingly very high, especially as a self-medication without any prescription.

Keywords: Benzodiazepines; community pharmacies; utilization; prescription; mental disorder.

1. INTRODUCTION

Benzodiazepines are the most habitually endorsed drugs for the administration of rest issue and tension [1,2]. It has been seen that in nervousness the impact of benzodiazepines is a lot more noteworthy when contrasted with fake treatment [3]. Benzodiazepines are additionally successful in decreasing the inactivity time frame for rest [4,5]. According to rehearsal rule for the administration of nervousness the more current stimulant is considered as the first line as contrast with benzodiazepines [6]. It has been prescribed by the training rule that the sleeping disorder ought to be overseen at first by conduct intercessions [7]. It has been additionally seen that the momentary results for sleep deprivation are same with benzodiazepines and conduct Intervention [8,9]. The delayed utilization of benzodiazepines may at some point cause withdrawal manifestations with unexpected suspension and furthermore sedates maltreatment [10]. Benzodiazepines are often recommended in the patients who are conceded in emergency clinic without adequate archived record. Nervous system science (35.6%) and orthopedic (26%) are the two significant strengths answerable for the recommending of benzodiazepines in subsequent to checking the pace of benzodiazepines remedy into various claims to fame [11]. One examination from Pakistan detailed that the benzodiazepines were utilized in 21% of all out conceded patients [12,13]. Midazolam is many times utilized in conceded patients [14]. Benzodiazepines are every now and again utilized in conceded patients who will experience some careful mediation as contrast with non-careful patients. It is accounted for by one investigation that 30 % of patients at out-patients centers of various strengths use benzodiazepine [15]. Notwithstanding the rules built up to restrict the utilization of Benzodiazepines in liquor poisonous quality, as a pre sedative prescription and for anxiolytic reason these are as yet considered as one among the most endorsed medications [16]. It has been accounted for tranquilize misuse notice that Benzodiazepines are 38% mindful among in general instances of medication misuse. Among the all Benzodiazepines 62%

instances of medication misuse are with alprazolam. Karachi and Lahore, the two primary urban areas of Pakistan demonstrated high pervasiveness 45% of Benzodiazepines in mental centers [17,18]. The aim of the examination is to check the predominance time frame and the example of Benzodiazepines utilization in various clinical claims to fame other than mental and neurological strengths and patients financial and segment relationship among the individuals who are utilizing Benzodiazepines by assessing remedy at various network drug stores and clinical store of District Sukkur Pakistan.

2. MATERIALS AND METHODS

A prospective cross sectional study was conducted at 24 different community pharmacies and medical stores of District Sukkur. Those study subjects were included in this study which were having more than 18 years of age and were consuming various classes of Benzodiazepines on regular basis. Mentally retard and people having less than 18 years of age were not selected for this study. A developed questionnaire was used in order to get data from the participants who used to visit the assign pharmacies and medical stores of District Sukkur. Questionnaire comprises of demographic data including age, sex, qualification, occupation and consumption of sedative drugs whether self-medicated or prescribed by health care professionals for any particular reason and co-morbidity rate among the participants. Total 177 participants were included in this study that visited the assigned Pharmacies and Medical stores and purchase the sedative drugs of same class. With the help of questionnaire and results were evaluated by using SPSS 23.00 version software.

3. RESULTS

The average age of the patients who were interviewed was 38 ± 20 years. From the 177 patients who visited the community pharmacies or medical store for the purchase of benzodiazepines 104 (58.75%) were male and

remaining 73 (41.24%) were female as shown in Table 1.

Table 1. Gender wise distribution of study subjects

Gender	Number	Percentage
Male	104	58.75%
Female	73	41.24%

Among the 177 patients 132 (74.57%) were married and remaining 45 (25.42%) were either single or widow as shown in Table 2.

Table 2. Marital status of study subjects

Marital status	Number	Percentage
Married	132	74.57%
Unmarried	45	25.42%

It has been observed that among the 177 patients 57 (32.20%) patients were graduate, 41 (23.16%) patients were enrolled in undergraduate program and remaining 79 (44.63%) was either educated up to intermediated or uneducated as shown in Table 3.

As for as occupations of those who visited the community pharmacies or medical store for the purchase of benzodiazepines is concerned 45 (25.42%) were housewives, 103 (58.19%) related with some profession either personal, government or private and remaining 29

Table 4. Occupational status of study subjects

Occupation	Number	Percentage
Housewives	45	25.42%
Professional, private, government job or own bussiness	103	58.19%
Don't have any profession	29	16.38%

Table 5. Co-morbidity of the study subjects consuming Benzodiazepine

Co-morbid condition	Number	Percentage
Cardiovascular disease	35	19.7%
Orthopedic disease	38	21.46%
Gastroenterology	32	18%
Endocrine disease	33	18.64%
Without prescription	39	22%

Table 6. Study subjects which are taking proper medication

Follow-up	Number	Percentage
With follow-up	96	54.23%
Without follow-up or self medication	81	45.76%

(16.38%) did not have any profession as specified in Table 4.

Table 3. Qualification of study subjects

Level of education	Number	Percentage
Graduate	57	32.20%
Undergraduate	41	23.16%
Primary/illiterate	79	44.63%

From the 177 patients who visited the community pharmacies or medical store for the purchase of benzodiazepines 35 patients have cardiovascular disease, 33 have problem related with endocrinology, 32 have problem related with gastroenterology, 38 patients suffering from orthopedic problems and remaining 39 were using the benzodiazepine without prescription as shown in Table 5.

It has been also observed that from 96 patients who were taking the benzodiazepine prescribed by their healthcare professionals 81 patients reported their current use of benzodiazepine was without proper follow up to their healthcare professionals as shown in Table 6.

From the 177 patients 104 were taking the alprazolam, 32 were using clonazepam, 23 were taking bromazepam and remaining 18 were taking any other benzodiazepine as specified in Table 7.

Table 7. Class of Benzodiazepine used by the study subjects

Benzodiazepine class	Number	Percentage
Alprazolam	104	58.7%
Clonazepam	32	18%
Bromazepam	23	12.9%
Other class of benzodiazepine	18	10.1%

4. DISCUSSION

The present investigation shows the pervasiveness and use of the benzodiazepines in the patients other than the psychiatry and nervous system science claims to fame [7]. As it was accounted for one examination that the psychiatric are for the most part answerable for the administration of the sleep deprivation and liable for the benzodiazepine endorsing and nervous system science is likewise liable for high level of benzodiazepine recommending while this investigation indicated the use of the benzodiazepine other than psychiatry what's more nervous system science claim to fame [11,12]. Pervasiveness of the benzodiazepine use is practically comparative in both male and female in this examination as contrast with different investigations [18,19] which demonstrated huge distinction of benzodiazepine use between the two sexual orientations. It has been accounted for by the various examinations that the utilization of benzodiazepine is more in a populace who are separated or isolated as contrast with this investigation which indicated that the more noteworthy number of the wedded people are associated with benzodiazepine use as in our general public of Pakistan the separation and partition are least regular because of strict and society related elements and because of this equivalent explanation the level of the housewives are more who were utilizing the benzodiazepine [19,20]. It is likewise seen by this examination that the level of self-utilization of benzodiazepine is more as in Pakistan there is no any appropriate control on apportioning of benzodiazepines without solutions followed by the people who were experiencing endocrine issue, cardiovascular scatters, orthopedic issues and gastroenterology separately as contrast with one investigation in Japan in patients who were conceded in medical clinic demonstrating that the more noteworthy number of patients who were experiencing nervous system science followed via heart activity, orthopedic , general careful cases and inner medication [17,18]. It has been likewise seen that the less number of populace who were taking benzodiazepine went for appropriate

follow up to their doctors which is exceptionally disturbing circumstance as various investigations demonstrated that the draw out utilization of Benzodiazepines may at some point cause withdrawal indications with abrupt end and medication misuse also [19]. The alprazolam was most every now and again utilized followed by clonazepam, Bromazepam and some different benzodiazepines by the patients who were met with the assistance of all around created survey at various network drug stores and clinical store of the Larkana as contrast with two unique examinations demonstrating clonazepam is for the most part utilized by mental out patients and midazolam in patients who were conceded in emergency clinics [21,22].

5. CONCLUSION

It has been concluded that the use of benzodiazepine is alarmingly high especially as a self-drug with no remedy. It additionally inferred that a large portion of the patients who were recommended the benzodiazepine didn't go for legitimate development and keep on taking the medication which is one of the significant reason for reliance also, withdrawal side effects.

CONSENT

As per international standard, parental written consent has been collected and preserved by the authors.

ETHICAL APPROVAL

It is not applicable

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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