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Survey on the awareness of using painkillers among the University students of Bangladesh

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ABSTRACT

The aim of the study was to determine the Awareness of using Painkillers among the University Students of Bangladesh. The main objective of this survey was to determine the percentage of young adults using painkillers without prescription. The survey carried out among 300 students of different public and private universities. Data were collected using structured questionnaires containing 5 questions related to the students' demographics and 15 questions related to the awareness of using painkillers. Descriptive statistics, factor analysis and Chi square test were used for data analysis. A total of 300 questionnaires were completed and collected. Both male and female students studying in different public and private universities completed questionnaires distributed. The most important finding was 69% students are unaware about taking painkillers. The study concluded that the university students are not conscious about using painkiller. A big percentage of students use painkiller without physician's prescription.

Key Words: Awareness, painkillers, University students, Bangladesh.

INTRODUCTION

Pain is a common and growing problem in our societies. It is frequently associated with intentional and unintentional injuries, as well as illnesses and diseases that occur over a normal lifespan. Pain is a subjective symptom that cannot be objectively measured in the way that blood pressure or heart rate can be measured. The Oxford English Dictionary (OED) defines pain as; A primary condition of sensation or consciousness, the opposite of pleasure, the sensation which one feels when hurt (in body or mind); suffering, distress. Or: In specifically physical sense: Bodily suffering; a distressing sensation as of soreness (usually in a particular part of body). Pain is defined by the International Association for the Study of Pain (IASP) as 'an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of

such damage' (Merskey & Bogduk, 1994). However, the inability to communicate verbally does not negate the possibility that an individual is experiencing pain and is in need of suitable pain-relieving treatment (Macintyre *et al.*, 2010).

Pain is an unpleasant sensation localized to a part of the body. It is often described in terms of a penetrating or tissue-destructive process (e.g., stabbing, burning, twisting, tearing, squeezing) and/or of a bodily or emotional reaction (e.g., terrifying, nauseating, sickening). Furthermore, any pain of moderate or higher intensity is accompanied by anxiety and the urge to escape or terminate the feeling. These properties illustrate the duality of pain: it is both sensation and emotion. When acute, pain is characteristically associated with behavioral arousal and a stress response consisting of increased blood pressure, heart rate, pupil diameter, and plasma cortisol levels. In addition, local muscle contraction (e.g., limb flexion, abdominal wall rigidity) is often present (Harrison *et al.*, 2005). Basically there are three types of pain: acute pain, chronic pain associated with malignant disease, and

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Table 1: Demographic characteristics of respondents.

Sex	n	%
Male	138	46
Female	162	54
Age		
18-21	122	40.7
22-25	156	52
26+	22	7.3
Year of Education		
1st year	72	24
2nd year	77	25.7
3rd year	60	20
4th year	70	23.3
Masters	21	7
Living places		
Parents	97	32.3
Brother/sister	20	6.7
Uncle/Relative	17	5.7
Hostel	156	52
Others	10	3.3
Money received from family other than tuition fees		
yes	221	73.7
No	79	26.3
Amount of Money received from family other than tuition fees		
<3000	95	31.7
3001 - 5000	89	29.7
5001- 8000	35	11.7
8000+	2	0.7

chronic pain not associated with malignant disease. Acute pain is of short duration and lasts less than 3 to 6 months. Intensity of acute pain is from mild to severe. Causes of acute pain include postoperative pain, procedural pain, and traumatic pain. Acute pain usually subsides when the injury heals. Chronic pain lasts longer than 6 months and ranges in intensity from mild to severe. Chronic pain associated with malignancy includes the pain of cancer, acquired chronic pain and inflammation associated with disorders such as rheumatoid arthritis or osteoarthritis. (Roach *et al.*, 2009) At present the principal treatment of pain non-steroidal anti inflammatory drugs (NSAIDs) (Buschmann *et al.*, 2004). Examples of NSAIDs include paracetamol, celecoxib, rofecoxib etc.

In Bangladesh, self-medication is widespread (Chowdhury *et al.*, 2009). This study is aiming to find out the Awareness of using Painkillers among the young adults of Dhaka city in Bangladesh. This survey was conducted on both public and private University students of Bangladesh. The awareness

was mainly measured by the tendency of using painkillers by the young adults without prescription. Self-medication rate among higher educated population in Bangladesh were evaluated earlier but awareness regarding using painkillers has never been evaluated (Islam *et al.*, 2007). In this survey we have evaluated the awareness of using Painkillers among the University Students of Bangladesh which has been characterized by four factors which are seeking help from physician while feeling pain, fulfilling prescription after consultation with a physician, taking the same drug without physicians' prescription for the same problem and how often using medicine without physicians prescription

The rate of self medication is very high in Bangladesh. The knowledge of OTC medicines and attitudes toward self-medication among higher educated population is not satisfactory (Islam *et al.*, 2007). To date there seems to be shortage of studies investigating awareness of using painkillers among the educated young adults in Bangladesh.

MATERIALS AND METHODS

The study was a questionnaire based survey carried out from April 2010 to June 2010. The samples were selected randomly among students studying in different universities of Dhaka city. The universities were selected by using simple random sampling from the university list. A questionnaire was developed based on the parameters related to the awareness of using drugs such as consulting physician for the treatment of pain or before using medicine, fulfilling prescription, restricting self medication etc.

In this survey we have evaluated the awareness of using Painkillers among the University Students of Bangladesh which has been characterized by four factors which are, seeking help from physician while feeling pain, fulfilling prescription, taking the same drug without physicians' prescription for the same problem and how often using medicine without physicians' prescription. The questionnaires were distributed to the selected universities. The questionnaires were then randomly distributed to the students. Questionnaires were fulfilled by both male and female students studying in different public and private universities.

The data were analyzed using Statistical program (SPSS®) version 16. The descriptive data, including demographic characteristics, distribution of respondents according to the awareness of drug use, were expressed in percentage. The factors related to the awareness were identified using Chi square test and significant variables were included in the logistic regression model.

RESULTS AND DISCUSSION

Demographic of the participants

The total number of questionnaires distributed was 500 and 300 completed forms were collected. This resulted in a response rate of 60%. There were 46% male and 54% female. Demographic data including age, sex, level of education, living place and financial condition of the respondents are shown in Table 1. We found 46% male and 54% female respondents and most of them are between the ages of 22-25 (52%). Mean age of respondents are 22.04. Most of the respondents (52%) live in the hostel and 32.3% live with parents. Maximum students are financially solvent and get money from the family (79%) and 41.4% students receive handsome amount of money (other than tuition fees) between the range of 3000-8000 taka per month. Mean amount of money received from the family is 3848.87 taka per month.

Nature of pain among participants

Overall we found that 89% of the participants felt pain. This data was stratified according to age, sex, year of education, money received from family other than tuition fees and living category (Table 3). Pain is experienced differently in male and female (Skvarc *et al.*, 2004). In a study it has been found that chronic pain was significantly associated with older age, female gender, lower levels of completed education (Blyth *et al.*, 2001). In our study we also found that women are more likely to feel pain (52.4%) rather than male. Headache is one of the most common outpatient pain conditions encountered in both physician offices and emergency departments (Gallagher *et al.*, 2005). In our study we observed several kinds of pain felt by the respondents (Table 2), among which headache is most common (53.3%). Maximum students (50.3%) do not consult with physician. Those who consulted, mainly consult with medicine specialists (27.3%). Most of them used drug (35.7%) and filled up

Table 2: Nature of pain among participants.

Feeling any kind of pain	n	%
Yes	267	89.0
No	33	11.0
Type of pain		
Headache	160	53.3
Toothache	28	9.3
Abdominal pain	39	13.0
Neck pain	14	4.7
Others	26	8.7
Consulted with physician		
Yes	116	38.7
No	151	50.3
Kind of physician		
GP	17	5.7
Medicine	82	27.3
Others	17	5.7
Drug used		
Yes	107	35.7
No	9	3.0
Filled up prescription		
Yes	88	29.3
No	28	9.3

prescription (29.3%). Respondents feel more pain (39.7%) who are between the ages of 20 to 22. Second year students feel more pain (25.1%) than other year of students. Students received money from family other than tuition fees feels more pain (74.2%). Students feel more pain who are living in hostel (54.7%) or living alone (58.4) without family members (p value <0.015 and 0.003 respectively).

Awareness of participants

In this survey we have evaluated the awareness of using Painkillers among the University Students of Bangladesh which has been characterized by four factors, which are seeking help from physician while feeling pain, fulfilling prescription after consultation with a physician, taking the same drug without physicians' prescription for the same problem and how often using medicine without physicians' prescription. We considered those as an aware participant who seek help from physician while feeling pain, fulfilling prescription after consultation with a physician, not taking the same drug without physicians' prescription for the same problem and do not use medicine without physicians' prescription. In this survey we found that among 300 participants only 93 students were aware about taking painkillers. That is a large number of students (69%) are unaware about taking painkillers. Awareness is closely related to self medication.

Table 3: Nature of pain among participants according to demographic characteristics.

Variables	Feeling any kind of pain		p-value (Chi-square, d.f)
	Yes	%	
Sex			
Male	127	47.6%	0.141 (2.395,1)
Female	140	52.4%	
Age Category			
18-20	70	26.2%	0.286 (2.502, 2)
20-22	106	39.7%	
22+	91	34.1%	
Year of Education			
1st year	61	22.8%	0.46 (3.616, 4)
2nd year	67	25.1%	
3rd year	54	20.2%	
4th year	65	24.3%	
Masters	20	7.5%	
Money received from family other than tuition fees			
yes	198	74.2%	0.675 (0.301, 1)
No	69	25.8%	
Whom do you live with?			
Parents	79	29.6%	0.015 (12.360, 4)
Brother/sister	16	6.0%	
Uncle/Relative	16	6.0%	
Hostel	146	54.7%	
Others	10	3.7%	
Living category			
Living with family member	111	41.6%	0.003 (9.399, 1)
living alone	156	58.4%	
Total	267		

Self-medication can be defined as obtaining and consuming drugs without the advice of a physician either for diagnosis, prescription or surveillance of treatment (Montastruc *et al.*, 1997). Self-medication is practiced significantly worldwide. A study based on self medication conducted in Palestine, it was found that there is no statistical difference between respondents who reported practicing self-medication based on gender (Sawalha *et al.*, 2010). Whereas in our study, we found that male students are more aware (52%) than female (47.3%). A significantly higher proportion of young (<40 years) male respondents had used self-medication than other groups (Shankar *et al.*, 2002). In our study students between the ages of 20-22 shows more awareness than others. Second year and fourth year students are more aware than other year of students. Usually students living alone or living in hostel are more aware regarding using painkillers than those living with families (Table 4).

Table 4: Awareness of the students according to demographic characteristics.

Variables	Awareness of the students		p-value (Chi-square, d.f)
	Aware	%	
Sex			
Male	49	52.7%	0.134 (2.427,1)
Female	44	47.3%	
Age Category			
18-20	23	24.7%	0.308 (2.365,2)
20-22	44	47.3%	
22+	26	28.0%	
Year of Education			
1st year	18	19.4%	0.388 (4.137,4)
2nd year	26	28.0%	
3rd year	19	20.4%	
4th year	26	28.0%	
Masters	4	4.3%	
Money received from family other than tuition fees			
yes	66	71.0%	0.482 (0.506,1)
No	27	29.0%	
Whom do you live?			
Parents	18	19.4%	0.007 (14.169, 4)
Brother/sister	7	7.5%	
Uncle/Relative	3	3.2%	
Hostel	62	66.7%	
Others	3	3.2%	
Living category			
Living with family member	28	30.1%	0.001 (11.559, 1)
living alone	65	69.9%	
Total	93		

CONCLUSION

Our study concluded that the university students are not conscious about using painkiller. Male students and students living alone are more aware. A big percentage of students (69%) use painkiller without physician's prescription. Further studies regarding awareness needs to be conducted in Bangladesh.

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