

# Effect of Social Media addiction on Compliance in the Patients of District Bannu, Khyber Pakhtunkhwa

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**Abstract** –Patient compliance is the phenomenon of following the instructions of the prescriber by the patient. It is a key factor towards the effectiveness of a therapy. Now-a-days social media addiction has become an epidemic. People all across the globe is seriously involved with social media, spending lots of time in using one or other form of social media and so social media is affecting lives of millions of people in the world. In this project, a relationship is likely to develop between social media addiction and the patient compliance. For this purpose handsome strength of patients with few common characters was surveyed in order to know about their addiction to any sort of social media. Patient who were found to be social media addicted were allocated to a group. Now a standard questionnaire was circulated among the members of that group to analyze the extent of Patient Compliance and factors behind showing non-compliance. One the other hand the compliance was measured also by standard compliance measuring techniques. Data from both the questionnaires and the measurement was co-related. Statistical tools were applied to the recorded data in order to analyze that to how much extent the compliance is being affected by addiction of social media.

**Keywords** – Compliance, Social media, Addiction, Non-compliance

## 1. Introduction

Modern world is facing a flood of cases where patients are not showing compliance regarding drug use [1]. Researchers from all over the world are busy to find the factors encouraging the patients to follow the prescriber's instructions [2]. Previous studies reveal that 50% to 75% of all patients' deviate from prescriber's instructions and are non-compliance [1]. Efforts are continuously done and still going on to enhance the extent of patient compliance especially in the under developed countries to assure the eradication of diseases and to make possible them extinct of the world. Scientists are certain about the fact that without knowing the factors which provoke patients to show non-compliance, it's almost impossible to improve overall compliance conditions in the patients [2]. So they are keenly engaged with identification of discouraging factors towards compliance.

Patient compliance depends on various factors. It is a wrong perception to relate patient compliance with the financial status, profession, social position, education of the people. The physician's prediction about patient compliance is mostly dependent of patient's arguments and replies or that of his family members and therefore such predictions are rarely accurate. The main factor behind patient compliance is the dosing frequencies. The higher is the frequency of dosing, the lower will be extent

of patient compliance and the higher will be the patient deviate from physician's instructions regarding taking of medications [3].

Patient compliance is measured by a number of techniques which in combination or lonely introduce us towards the extent of patient compliance [4]. These factors are termed as Compliance indicators [4]. These compliance indicators are broadly classified into five classes which are given as [4];

(1) Direct indicators, which includes either analysis of Urine and Blood samples or changes in weight or both.

(2) Indirect indicators, which involves counting of pills reviewing refill records

(3) Compliance indication by analyzing health outcomes, which includes checking health parameters like Blood Pressure etc.

(4) Compliance indication by Subjective report, which involves reviewing of Patient's various medical reports.

(5) Compliance indication by evaluation of Patient's Utilizations, like Following preventions etc.

People are frequently involved with the use of social media like Facebook, Twitter etc. all around the globe, now-a-days. Their main objective behind using of social media is to share their thoughts and views with other people [5]. Researchers of Health sciences are taking deep interest in exploring effects of social media on the overall health condition of the society. Scientists are struggling to

find links between diseases and Posting on Twitter or Facebook [6]. Updating status on social media may be a sign of major depressive episodes [7]. Most of the people post on Twitter about their depressions. There is a group of people which Post about their illnesses and managements on their walls of social media accounts. Social Media is extremely affecting habits and lifestyles of people. Development of emotional changes is somewhere associated with social media. Large numbers of People are going to become addicted to the social media. The reason behind this addiction is the busy life which carried people away from each other so the media play the role of a bridge to connect people from all around the world with each other, communicating and sharing their views on various political and social issues independently [5].

Addiction of social media sometimes interferes with people's most important tasks like timings of meal, sleep or medicines intake etc. [5]. This is done due to serious involvement of social media users with his Facebook or Twitter account. Actually certain web activities can induce depression in the people especially at young age. Status updating on Facebook can provoke major episodes of depression in the people [7]. This depression or mood alteration caused by activities on social media is involves with the modification of daily routine activities. Sometimes it may result in the skipping of lunch, quitting of medicines or daytime sleep due to whole night engagement with the social media activities. So social media addiction may results in fall of overall health conditions of the addicted person. The most serious complication of such addiction is skipping of dose of medication which is even more common as compared to skipping of meal or sleep. The non-compliance is a possible result of social media addiction. In other words social media may be seriously involved with patient non-compliance and hence is responsible for lack of quick recovery and management of serious illnesses. But this problem can be overcome by a good "Doctor-Patient Relationship" [1].

This study aims to achieve the following goals;

- To measure and compare the extent of Social media addiction among the male and female patients.
- To analyze the role of Social media addiction in Non-Compliant behavior in patients.

## 2. Methodology

It includes the following three phases:

### 2.1. Phase 1

A randomized group of 100 persons including 50 males and 50 females was selected, among which all of them were engaged with 3-5 drugs for at least next 5 days, prescribed to them by doctors for treatment of their illnesses and were involved with using of one or other form of social media for at least previous one month. This group was nominated as group A. A survey was made to investigate that how many individuals among this group are addicted to face book, Twitter or any other kind of

social media. By addition we mean that the person should spend at least 20 hours per week of his total time in using social media consistently.

### 2.2. Phase 2

In this Phase a group of individuals selected after survey in Phase 1 was allocated to Group B. This Phase included two Sub-Phases;

#### 2.2.1. Phase 2 (a)

A standard closed type questionnaire was distributed among all the members of Group B. These questionnaires included question regarding utilization of medication on their due time, quitting of doses, number and reason of dose skipping etc. It was made mandatory for each of the member of group B to fill the Questionnaire on daily basis. These filled questionnaires were checked every day to record data regarding compliance, non-compliance and reasons of non-compliance.

#### 2.2.2. Phase 2 (b)

Side-wise, compliance was measured in members of group B, by using various compliance measurement techniques also known as compliance indicators. Various methods are there to evaluate extent of compliance in patient. In this stage we follow *Roter et al* [4] as mentioned in introduction.

### 2.3. Phase 3

Date obtained from questionnaire and compliance measurement techniques was co-related to get exactly accurate data. Standard statistical techniques were applied on final data to get the required details.

## 3. Results and Discussion

### 3.1. Phase 1

In the survey of Group A, some superficial information about the patients was obtained mainly about the time they spend with social media. Among the 100 patients, only 2 patients were killing their time with social media for above 30 hours per week (2%), both of which were males. 12 were using the Social media for above 25 to 30 hrs per week (12%), among which all were male patients. 25 Patients were involved in using Facebook, Twitter, Instagram etc. for 20-25 hours per week (25%), among which 19 were male patients and 6 were females. 61 patients were engaged with social media for below 20 hours per week (61%) among which 17 were male and 44 were female patients. So at the end of survey in Phase-1, only 39 patients among the members of group A were using social media for 20 hours or above per week. In other words just (39%) patients were regarded as Social media addicted. While remaining 61% were called to be non-addicted social media users. The Gender-wise description of social media usage is explained in figure 2.

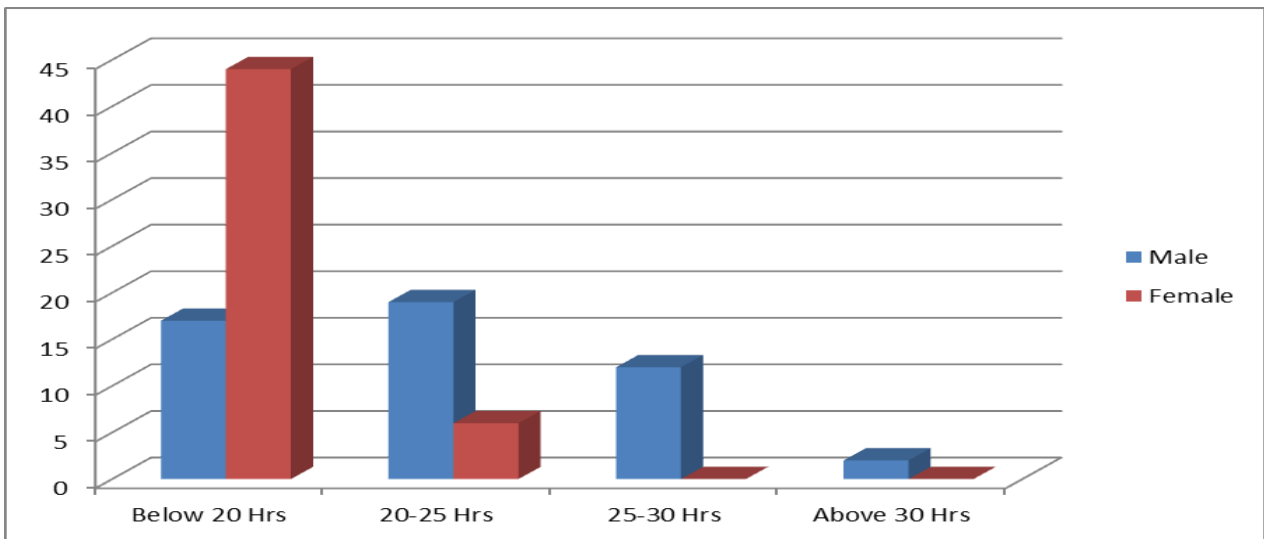


Figure 1: Weekly Social Media Use (Hrs) among the members of Group A

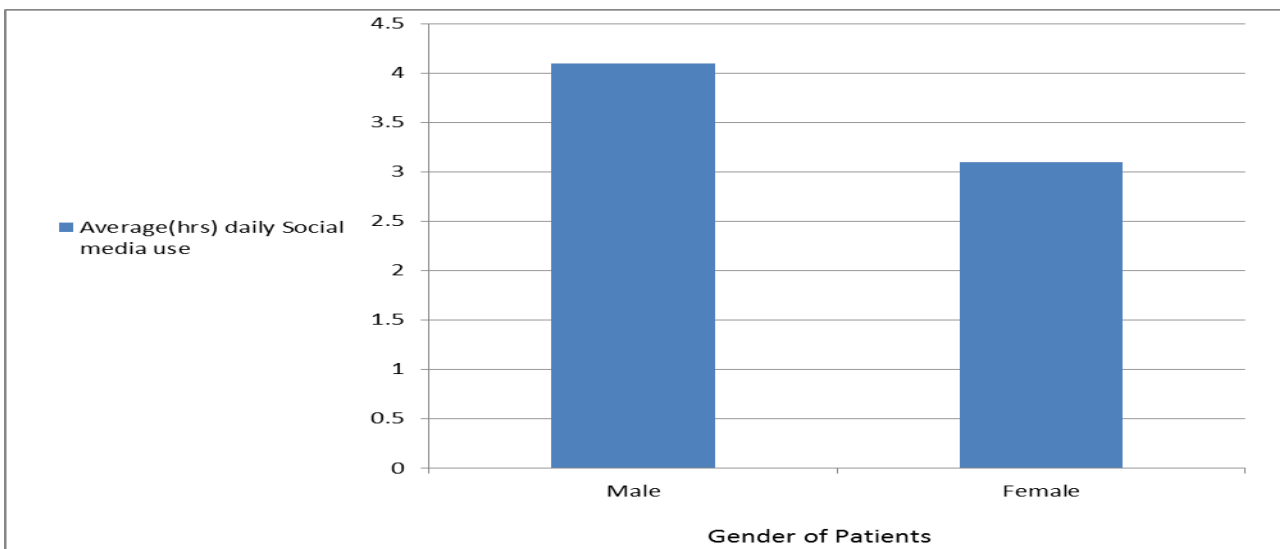


Figure 2: Average daily social media use in male and female patients

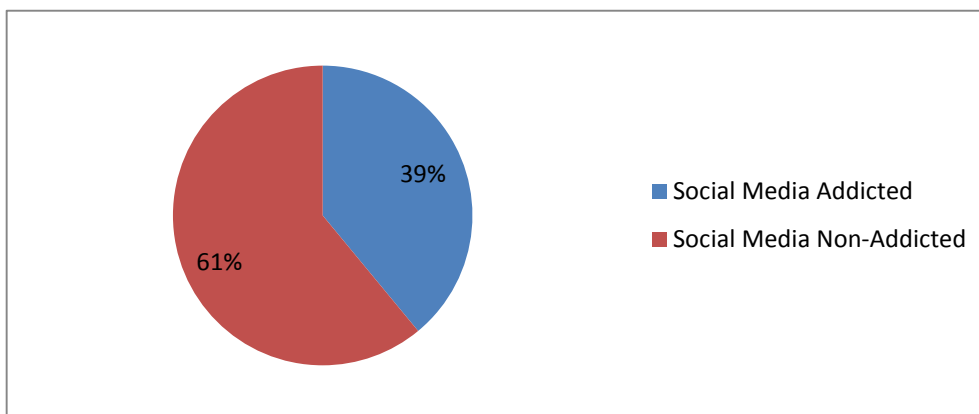


Figure 3: Extent of Social media addiction among the members of group-A

3.2. Phase 2

The 39 patients which were regarded as social media addicted were allocated as Group B.

3.2.1. Phase 2 (a)

According to the data obtained from day-to-day filled questionnaires, it was found that just 14 patients (35.8%), among which 1 was female and 13 were male patients, took each and every dose of medicines on due time for consecutive 5 days without missing a single dose. While 25 patients (64.1%), among which 5 were females and 20 were male patients failed to take all the doses on due time and skipped one or other dose.

Table1: Showing Data obtained from Questionnaires

Patients	Male	Female	Total
Showing Compliance	13	1	14
Showing Non-Compliance	20	5	25

3.2.2. Phase 2 (b)

In this phase we checked the compliance by various compliance indicators, the results of which are given below;

Here we found 12 patients (29.8%), among which 1 was female and 11 were male, that completely followed

the instructions of prescriber in their drug use hence are called to show Patient Compliance. While 27 patients (69.2%) showed non-compliance, among which 22 were male and 5 were female patients.

Table 2: Showing Data obtained from Compliance measuring Techniques

Patients	Male	Female	Total
Showing Compliance	11	1	12
Showing Non-Compliance	22	5	27

3.3. Phase 3

When we compared the information obtained from questionnaires with the data received from compliance indicators, we came to the conclusion that 2 patients among the members of Group B filled the questionnaire with false information, hiding their exact actions. They claimed to show 100% compliance but in reality they didn't. Their lies were uncovered after indication of their non-compliance in the Direct Indicator technique as well as Indirect Indicator method. Hence the data of those two Patients were discarded and remaining 25 patients who showed non-compliance due to one or other reason were taken into account. Statistical software i.e SPSS was applied to find the results. Among these 25 patients (20 male and 5 female patients) some of the patients failed to obey prescriber's instructions because of one reason or more at the same time.

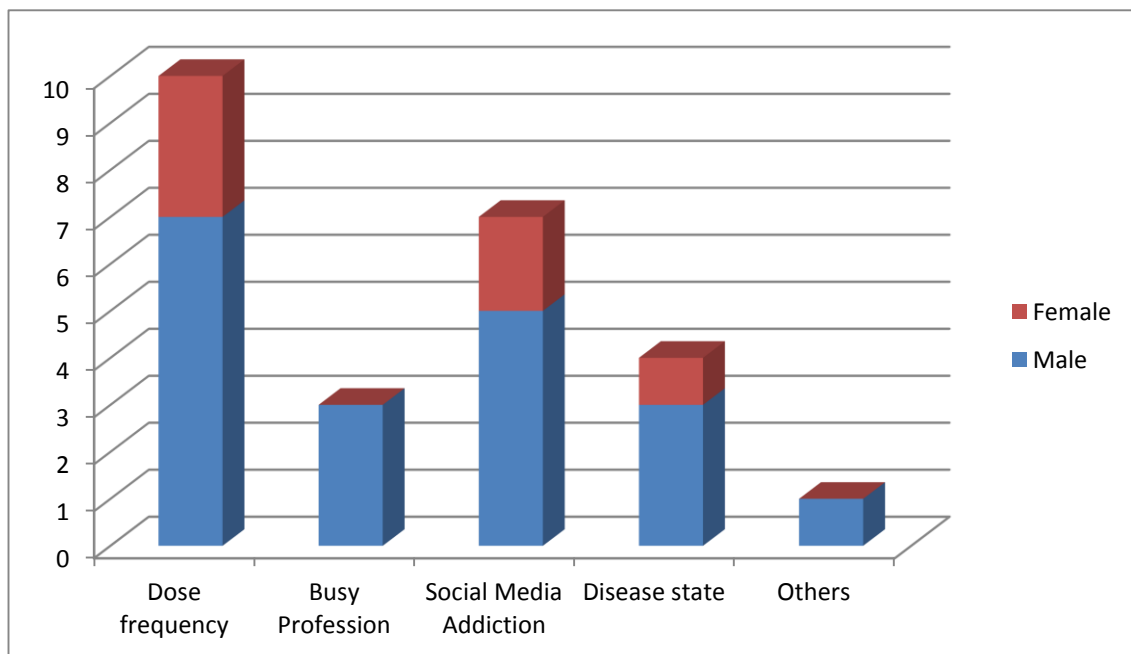


Figure 4: Showing various reasons of Non-compliance in Patients

4. Conclusion

It is concluded from this research work that mainly male patients are involved with social media in the region of Bannu district. Moreover, it is found that frequency of dose is the main reason behind the non-compliance attitude of Patients. The novel finding of this research

work is that besides well-known factors behind patient's non-compliance, another new factor is Social media addiction, which is found to be a silent, but one of the most important unavoidable reasons of patient non-compliance.

## Acknowledgement

We are highly thankful to the management of District Head Quarter Teaching Hospital Bannu and K.G.N Teaching Hospital Bannu for their moral and technical support at every stage of our research work.

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