Is Internet Addiction Prevalent among Methadone Maintenance Treatment (MMT) patients? Data from Las Vegas and Tel Aviv

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PURPOSE

As drug addicts show vulnerability and predisposition to addictive behaviors [1], and Internet addiction was found to be related to depression [2], we evaluated internet addiction and depression among methadone maintenance treatment (MMT) patient.

METHODS

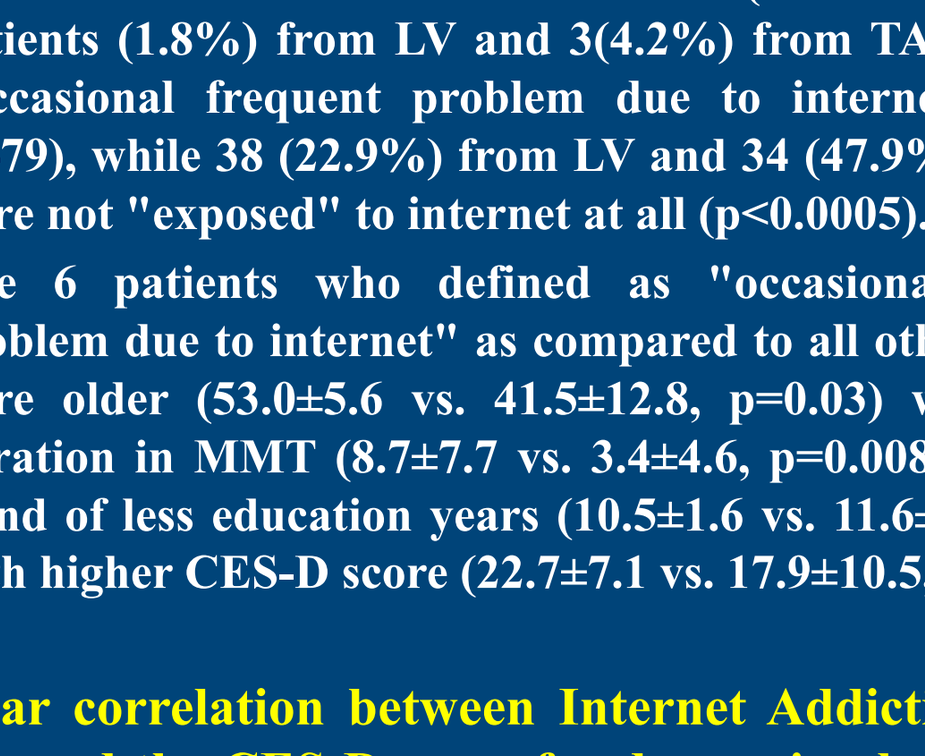
A non-selective sample of patients from Las Vegas (LV) MMT clinic (N=166) were compared with a random sample (N=71) from Tel Aviv (TA) MMT clinic, using Internet Addiction Test (IAT) questionnaire, and the Center for Epidemiologic Studies Depression (CES-D) questionnaire for depression. Observed and random urine tests for drugs (opiates, cocaine metabolite (benzoylecgonine), benzodiazepines, cannabis, and methylphenidate) at the month prior to study evaluation were done and positive result defined if at least one of the tests was positive. Demographic and addiction history were taken from patients' chart.

RESULTS

None defined with internet addiction (IAT scored ≥80), 3 patients (1.8%) from LV and 3(4.2%) from TA defined as "occasional frequent problem due to internet" (scored 50-79), while 38 (22.9%) from LV and 34 (47.9%) from TA were not "exposed" to internet at all ($p<0.0005$).

The 6 patients who defined as "occasional frequent problem due to internet" as compared to all other patients were older (53.0±5.6 vs. 41.5±12.8, $p=0.03$) with longer duration in MMT (8.7±7.7 vs. 3.4±4.6, $p=0.008$), and as a trend of less education years (10.5±1.6 vs. 11.6±1.9, $p=0.1$) with higher CES-D score (22.7±7.1 vs. 17.9±10.5, $p=0.2$).

Linear correlation between Internet Addiction Severity score and the CES-D score for depression by methadone maintenance treatment patients in Tel Aviv and Las Vegas who are and are not exposed to the Internet.



Logistic regression model :

Las Vegas compared to Tel Aviv Clinic:

	Odds Ratio	95% CI
Cannabis abuse	36.4	2 - 652.8
Treatment duration	0.7	0.56-0.79
Female	5.0	1.4-17.8
Depression	1.07	1.0-1.1
Age	1.1	1-1.1
Education	2.4	1.7-3.4

Logistic regression model. Tel Aviv:

"non-exposed" compared to the "exposed"

	Odds Ratio	95% CI
Age	1.1	1-1.2
Methylphenidate abuse	10.9	1.1 - 103

Logistic regression model. Las Vegas:

"non-exposed" compared to the "exposed"

	Odds Ratio	95% CI
Benzodiazepine abuse	4.0	1.5-10
Hepatitis C antibody	4.3	1.7-10.7
Education	0.7	0.6 – 1.0

CONCLUSIONS

Not like other addiction behavior such as pathological gambling that we already found as prevalent among MMT patients [3], the internet addiction was found to be rare among former opiate addicts, current MMT patients. These finding were consistent in the two clinics despite TA and LV clinics differed in several characteristics. Both clinics had a high prevalence of patients who were "non-exposed" to internet. The non-exposed group characterized as older, less educated, with more risky behavior and abuse of non-prescription drugs (benzodiazepine, methylphenidate). We conclude that education about internet use is more relevant and needed for the MMT patients population.

A specific intervention, that may include treatment for depression, is needed to the rare internet addicts.

P.6.d.002

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Methods: A non-selective sample of patients from Las Vegas (LV) MMT clinic (N=166) were compared with a random sample (N=71) from Tel Aviv (TA) MMT clinic, using Internet Addiction Test (IAT) questionnaire, and the CES-D questionnaire for depression. Observed and random urine tests for drugs [opiates, cocaine metabolite (benzoylecgonine), benzodiazepines, cannabis, and methylphenidate] at the month prior to study evaluation were done and positive result defined if at least one of the tests was positive. Demographic and addiction history were taken from patients' chart.

Results: None of the patients was defined with internet addiction (IAT score ≥80), 3 patients (1.8%) from LV and 3 (4.2%) from TA defined as 'occasional frequent problem due to internet' (scored 50–79), while 38 (22.9%) from LV and 34 (47.9%) from TA were not 'exposed' to internet at all (p<0.0005). Logistic regression model found LV as compared to TA patients as being more cannabis abusers (Odds Ratio [OR]=36.4, 95% Confidence Interval [CI] 2–652.8), treating for shorter duration in MMT (OR=0.7, 95%CI 0.56–0.79), more female (OR=5.0, 95%CI 1.4–17.8), more depressed (OR=1.07, 95%CI 1.0–1.1), older age (OR=1.1, 95%CI 1–1.1) and more educated (OR=2.4, 95%CI 1.7–3.4). Logistic regression model between the 'non-exposed' to the 'exposed' in TA characterized them as older age (OR=1.1, 95%CI 1–1.2), and most likely methylphenidate abusers (OR=10.9, 95%CI 1.1–103). In LV the non-exposed characterized as benzodiazepine abusers (OR=4.0, 95%CI 1.5–10), being positive antibody to hepatitis C (OR=4.3, 95%CI 1.7–10.7), and less educated (OR=0.7, 95%CI 0.6–1.0). Mean IAT score was higher among male (19.7±14.8 vs. 14.8±12.4, p=0.03). IAT and CES-D correlated (R=0.2, p=0.04). The 6 patients who defined as 'occasional frequent problem due to internet' as compared to all other patients were older (53.0±5.6 vs. 41.5±12.8, p=0.03) with longer duration in MMT (8.7±7.7 vs. 3.4±4.6, p=0.008), and as a trend of less education years (10.5±1.6 vs. 11.6±1.9, p=0.1) with higher CES-D score (22.7±7.1 vs. 17.9±10.5, p=0.2).

Conclusions: Not like other addiction behavior such as pathological gambling that we already found as prevalent among MMT patients [3], the internet addiction was found to be rare among former opiate addicts, current MMT patients. These finding were consistent in the two clinics despite TA and LV clinics differed in several characteristics. Both clinics had a high prevalence of patients who were 'non-exposed' to internet. The non-exposed group characterized as older, less educated, with more risky behavior and abuse of non-prescription drugs (benzodiazepine, methylphenidate). We conclude that education about internet use is more relevant and needed for the MMT patients population. A specific intervention, that may include treatment for depression, is needed to the rare internet addicts.

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Keywords

Drug dependence & abuse: clinical

Depression: clinical

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