

Can we Say that Love is Addictogene

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Abstract

Original Research Article

Introduction: in recent years, scientists have looked into the subject of love addiction given the neurobiological, psychological and behavioral similarities of people who have experienced this feeling, which is described by some as a mystery and by others as a disease in its own right. What about the psychiatric and scientific point of view? Does an addiction to a person or an emotion exist? Is love addictogenic? **Objectives:** Evaluate the notion of love addiction and its prevalence, assess the severity of addiction and dependence on the "loved" person and finally determine if this entity really exists? **Material and methods:** descriptive study including 507 people who were able to answer our online survey (Google forms) and patients consulting or hospitalized in the addictology department at Arrazi Hospital in Salé Morocco, this survey was inspired by the diagnostic criteria of substance use disorders of the DSM 5, and the statistical analysis will be done through the same tool. **Results:** Female gender was the most to participate (79.9%) as well as young age between 21 and 40 years (80.5%), all with a university school level. 80.5% had no psychiatric history and 80.9% had no history of addictive behaviors. The questions that were asked to the participants correspond to the DSM 5 criteria of substance use disorders applied in the context of love addiction, and they were asked to answer each of them with yes or no: The 2 criteria out of 11 essential to make the diagnosis of an addictive behaviour were found in: 70% of the participants! Of which 44.4% had 6 or more criteria and therefore the intensity was severe.

Conclusion: love addiction is a disorder that can cause suffering as intense as substance use, therefore, it needs to be treated with as much interest as drug use.

Keyword: love- addiction -addictive behaviour- addictology- emotional attachment- neurobiological disorder.

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INTRODUCTION

Addictions are mainly defined as a dependency on substances or behaviors that provide a feeling of pleasure and well-being, these are repeated and regular behaviors or reactions, associated with the subject's difficulty in countering this irresistible urge to live. To an object/tool or external practice that gives him physical and psychological pleasure, with persistence of these behaviors despite the psychological, financial, family, social and sometimes even physical damage that this could cause.

In recent years, scientists have looked into the subject of love addiction given the neurobiological, psychological and behavioral similarities of people who have experienced this feeling, which is described by some as a mystery and by others as a disease in its own right.

What about the psychiatric and scientific point of view? Does an addiction to a person or an emotion exist? The suffering reported in the "withdrawal" of the loved one would be the same as in the withdrawal from a psychoactive substance? Would the biological and imaging mechanisms be the same? Is there finally a therapeutic care of people suffering from a love addiction?

First of all, we must differentiate love addiction from:

- **Love Passion:** a universal and necessary state for human beings, resulting in intense motivation and a compelling need for the other (the love object)
- **Sexual Addiction:** "hypersexual disorder" in the DSM 5 and which is the pleasure, the lack and the harmful consequences which are essentially related to sexual pleasure, the partner here is

interchangeable and the goal is to relieve the sexual tension

We could thus better define "love addiction" as a disorder characterized, beyond the attraction and need for the other, by problematic modalities of love relationships, leading to significant distress and persistence of the behavior despite the knowledge of its harmful consequences.

OBJECTIVES:

The main objectives of our work are:

- To evaluate the concept of love addiction and the prevalence of this type of addiction among the addictology consultants of the Arrazi Hospital in Salé as well as among the cybernauts;
- To evaluate the severity of the addiction and dependence on the "loved one";
- To finally determine if this entity really exists?

MATERIAL AND METHOD

This is a descriptive study including 493 people (see figure 1) who responded to an anonymous online questionnaire (Google forms), as well as consultants at the addictology department of the Arrazi Hospital in Salé.

The questionnaire included a part to determine the clinical and socio-demographic characteristics of the study participants.

The second part was based on the DSM 5 diagnostic criteria for substance use disorders. The questions that were asked were the following:

- 1) Do you feel a compelling and hard-to-control need to see "the loved one"?
- 2) Have you lost control over the amount and amount of time dedicated to "the loved one"?
- 3) Do you spend the majority of your time seeking and attracting the interest of the "loved one"?
- 4) Is the time you spend with your "loved one" less and less sufficient?
- 5) When you stop seeing the "loved one", do you begin to experience uncomfortable physical and psychological symptoms (irritability, aggressiveness, insomnia, headaches, nausea...)?
- 6) Do you give priority to your "loved one" at the expense of your professional, family and social obligations and responsibilities?
- 7) If your love relationship was/is violent, do you still feel the need to stay with the "loved one"?
- 8) Are you unable to detach yourself from the "loved one" despite the personal and social problems he/she causes you?
- 9) You are aware of the need to end the relationship, but you make continuous efforts to stop but to no avail?
- 10) Your life revolves around the "loved one"?
- 11) Despite the physical and/or psychological damage, you continue in the relationship?

The presence of 2 out of 11 criteria is necessary to make the diagnosis of an addictive behaviour.

The statistical analysis was done with the software: Google forms.

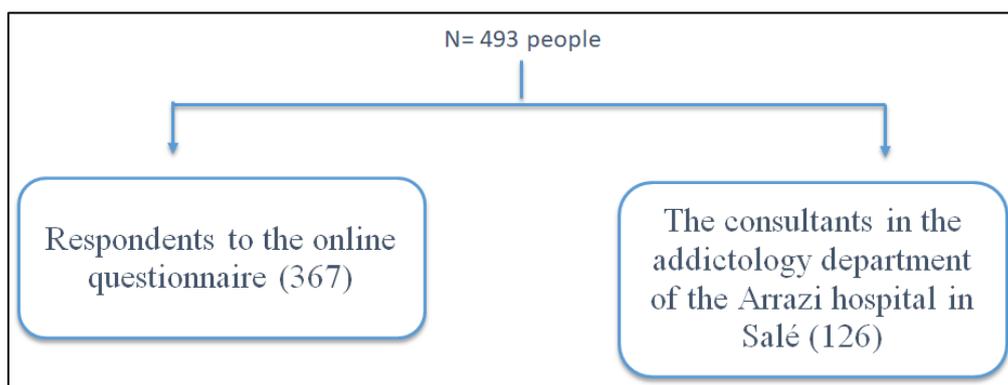


Figure 1: Study population

RESULTS

1) Socio-Demographic Data of the Study Population

The socio-demographic data of those included in the study gave us an idea of the profile of most participants (see Table 1).

The vast majority of participants were women (79.9%) with ages ranging from 21 to 40 years (80.5%).

The 493 participants had a university level of education, which is equivalent to 100%, and about half were still students (50.9%).

Regarding their psychiatric and addictive histories, 80.5% and 80.9% respectively claimed not to have any.

Table 1: Socio-demographic data of study participants

Variables	N (%)
Age:	
< 20 ans	84 (17%)
21– 40 ans	398 (80,5%)
41 – 60 ans	14 (2,8%)
>60 ans	0 (0%)
gender:	
female	393 (79,9%)
male	100 (20,3%)
Grade:	
Never attended school	0 (0%)
Primary	(0%)
Secondary	0(0%)
University	493 (100%)
Profession :	
Public sector	137 (27,8%)
Liberal sector	94 (19,1%)
No profession	18 (3,7%)
Student	252 (50,9%)
Psychiatric history:	
Yes	93 (19,5%)
No	400 (80,5%)
History of addictive behaviors:	
Yes	94 (19,1%)
No	399 (80,9%)

2) Do Participants Show Symptoms of Love Addiction

To determine whether participants met the criteria for an addictive disorder, the following question was asked:

- Of the 11 questions above, did you answer "Yes" to at least 2 items?

⇒ The result was that 70.2% of the participants met the criteria for an addictive disorder. While 29.8% did not seem to meet these criteria.

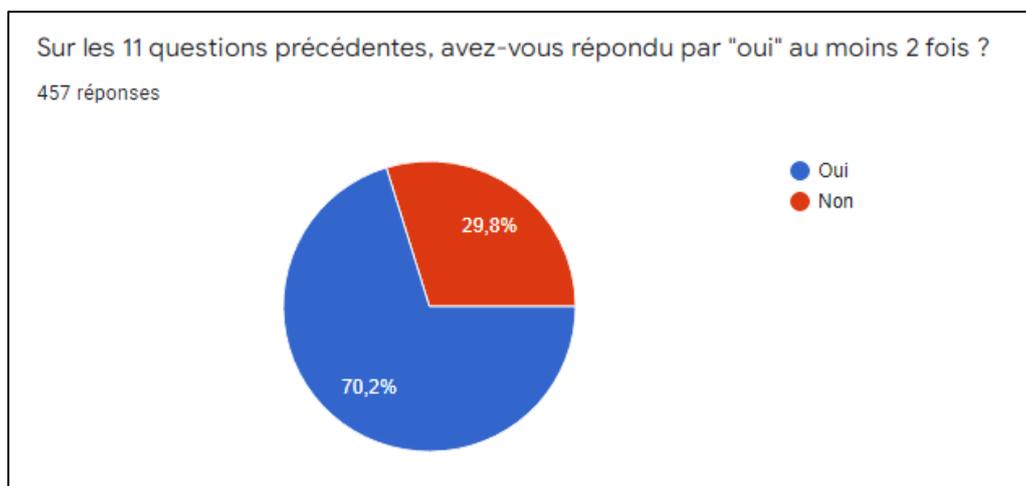


Figure 2: Percentages of participants who did and did not meet the criteria for addictive behavior

3) How Severe is this Type of Addiction?

The severity of the substance use disorder according to the DSM 5 will depend on the number of positive criteria.

- 44.4% of the 70.2% of those who completed the questionnaire met the DSM 5 diagnostic criteria for a substance use disorder (of the

loved one in our study) of severe intensity (6 or more criteria) ;

- 28.6% would have a moderate disorder (4 to 5 positive criteria) ;
- 26.8% would have a rather mild disorder (2 or 3 positive criteria).

Table 2: The severity of the addiction

Severity of the addiction	N (%)
Light: 2 to 3 criteria out of 11	86 (28,6%)
Moderate: 4 to 5 criteria out of 11	89 (28,6%)
Severe: 6 or more criteria out of 11	139 (44,4%)

The results of this study can be alarming and impose the deepening of this kind of disorders in order to lift the veil on a suffering which could be underestimated until now.

DISCUSSION

Our study clearly shows alarming results regarding addiction to "loved ones", in fact, a large percentage of the population that participated in the study met the diagnostic criteria of an addictive disorder according to the DSM 5, with about half of them claiming to have a "severe addiction", is this a real addiction that will require further research and more appropriate treatment?

The data from our work prove that special attention should be given to people suffering from this problem, who would present the same neurobiological disturbances as people addicted to psychoactive substances. As reported in several articles, love addiction is a real problem.

Although there is some debate about what an addiction is, let alone love, Anders Sandberg of the Oxford University Centre for Neuroethics tells *New Scientist* that he believes love addiction "is when you realize you don't want to be in love and yet you can't stop it, and it has harmful consequences, such as abuse, that you cross the threshold into something that would be close to an addiction" [1].

Although there is no validated definition or diagnostic criteria for "love addiction", its phenomenology has similarities with those of addictions:

- From a psychological and psychiatric perspective:
 - « ...the person progressively loses control of his or her own existence and gradually leaves reality behind to shut himself or herself up in a world where his or her physical, psychological, emotional and spiritual state continues to deteriorate... »
 - It can lead to: sleep disorders, appetite disorders, somatic complaints as well as mood disorders... »
 - Inevitably, everything deteriorates: love and sex life, family and friends, social and professional life, and the resulting moral suffering is so great that it can sometimes lead the person to suicide" [2].

□ From a neurobiological perspective:

- Studies have indicated that love activates specific brain circuits, distinct from those involved in sexual desire or maternal love. To find out for sure, Fisher and colleagues used functional MRI to observe the brains of 17 American and 17 Chinese youths who reported being very much in love with their partners.
- They compared the reactions of the subjects' brains when presented with a photograph of their loved one and that of a stranger.

The team found that the sight of a loved one activates several regions usually associated with addiction, including the ventral tegmental area (VTA), the ventral striatum/pallidum, which are areas related to the reward circuit, as well as activation of serotonin-rich areas: the medial and dorsal raphe nuclei [3, 4].

From a Neurobiological Perspective: Heartache:

Functional imaging by nuclear magnetic resonance: the sensation of withdrawal is clearly expressed at the cerebral level.

- Heartache calls for specific areas of the brain. The images collected during the X-ray of a person who has been abandoned are strictly in reverse symmetry to those of a person who is passionately in love: hypofunction of the ventral striatum, the anterior cingulate and the orbitofrontal and prefrontal cortices, the thalamus and the insula, and hyperfunction of the areas of the cortex associated with the theory of mind [5].

CONCLUSION

The proximity of Love and addiction was "clinically" sensed: desire and pleasure become a need, and the absence of the other (or of the product) leads to anhedonia, emptiness, tension, irritability and suffering, with a compulsive and absolute need to return to it, to take it again (the "craving"), whatever the price to pay, the invasion of memory and the loss of reasonable control of behavior.

Neuropsychology, neurobiology and neuroimaging now allow us to better understand these states.

The results of our study as well as the data of the literature impose the deepening of the research in this direction, and requires to be taken in charge with as

much interest as the consumption of psychoactive substances, seen that it can lead to psychiatric disorders which can sometimes put at stake the vital prognosis of the subject.

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