

VICIADOS

CÉREBRO

MUDANÇAS

PERDIDA

# Web addicts have brain changes, research suggests

CAN = PODE

carry out = efetuar / executar

COULD = PODERIA

By Helen Briggs  
Reporter for BBC News website

VICIADOS

Web addicts have brain changes similar to those hooked on drugs or alcohol, preliminary research suggests.

QUEBRA  
ROMPIMENTO

Experts in China scanned the brains of 17 young web addicts and found disruption in the way their brains were wired up.

DESCOBERTA

They say the discovery, published in Plos One, could lead to new treatments for addictive behaviour.

↳ COMPORTAMENTO

USO DA INTERNET SEM CONTROLE

Internet addiction is a clinical disorder marked by out-of-control internet use.

EXECUTOU

A research team led by Hao Lei of the Chinese Academy of Sciences in Wuhan carried out brain scans of 35 men and women aged between 14 and 21.

FORAM CLASSIFICADOS

Seventeen of them were classed as having internet addiction disorder (IAD) on the basis of answering yes to questions such as, "Have you repeatedly made unsuccessful efforts to control, cut back or stop Internet use?"

MATÉRIA BRANCA

Specialised MRI brain scans showed changes in the white matter of the brain - the part that contains nerve fibres - in those classed as being web addicts, compared with non-addicts.

There was evidence of disruption to connections in nerve fibres linking brain areas involved in emotions, decision making, and self-control.

Dr Hao Lei and colleagues write in Plos One: "Overall, our findings indicate that IAD has abnormal white matter integrity in brain regions involving emotional generation and processing, executive attention, decision making and cognitive control.

"The results also suggest that IAD may share psychological and neural mechanisms with other types of substance addiction and impulse control disorders."

Prof Gunter Schumann, chair in biological psychiatry at the Institute of Psychiatry at King's College, London, said similar findings have been found in video game addicts.

He told the BBC: "For the first time two studies show changes in the neuronal connections between brain areas as well as changes in brain function in people who are frequently using the internet or video games."

Commenting on the Chinese study, Dr Henrietta Bowden-Jones, consultant psychiatrist and honorary senior lecturer at Imperial College London, said the research was "groundbreaking".

She added: "We are finally being told what clinicians suspected for some time now, that white matter abnormalities in the orbito-frontal cortex and other truly significant brain areas are present not only in addictions where substances are involved but also in behavioural ones such as internet addiction."

She said further studies with larger numbers of subjects were needed to confirm the findings.

ANORMAL

ALÉM DE TUDO

ACHADOS DESCOBERTAS

DIVIDIR

CONFERENCISTA

INDVADOR, PIONEIRO

VERDADEIRAMENTE

vícios

COMPORTAMENTAL

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## Tradução Livre

### **Web addicts have brain changes, research suggests**

*Viciados na Web têm mudanças no cérebro, sugere pesquisa*

Web addicts have brain changes similar to those hooked on drugs or alcohol, preliminary research suggests.

*Viciados na Web têm mudanças no cérebro parecidas com aqueles viciados em drogas ou álcool, sugere pesquisa preliminar.*

Experts in China scanned the brains of 17 young web addicts and found disruption in the way their brains were wired up.

*Especialistas na China escanearam os cérebros de 17 jovens viciados na web e encontraram rompimento no modo que seus cérebros estão ligados.*

They say the discovery, published in Plos One, could lead to new treatments for addictive behaviour.

*Eles dizem que a descoberta, publicada no "Plos One", poderia levar para novos tratamentos para comportamentos que causam dependência.*

Internet addiction is a clinical disorder marked by out-of-control internet use.

*Vício na internet é uma desordem clínica marcada pelo uso da internet sem controle.*

A research team led by Hao Lei of the Chinese Academy of Sciences in Wuhan carried out brain scans of 35 men and women aged between 14 and 21.

*Uma equipe de pesquisa liderada por Hao Lei da Academia Chinesa de Ciências em Wuhan executou escaneamento de cérebros de 35 homens e mulheres com idade entre 14 e 21 anos.*

Seventeen of them were classed as having internet addiction disorder (IAD) on the basis of answering yes to questions such as, "Have you repeatedly made unsuccessful efforts to control, cut back or stop Internet use?"

*Dezessete deles foram classificados como tendo desordem de vício na internet (IAD) com base em respostas de sim para questões como, "Você repetidamente fez esforços sem sucesso para controlar, cortar ou parar o uso da internet?"*

Specialised MRI brain scans showed changes in the white matter of the brain - the part that contains nerve fibres - in those classed as being web addicts, compared with non-addicts.

*O MRI um escaneamento especializado do cérebro mostrou mudanças na matéria branca do cérebro - a parte que contém fibras nervosas - naqueles classificados como sendo viciados na web, comparando com os não viciados.*

There was evidence of disruption to connections in nerve fibres linking brain areas involved in emotions, decision making, and self-control.

*Há evidências de rompimento para conexões nas fibras nervosas ligando áreas do cérebro envolvendo emoções, tomada de decisão e autocontrole\*.*

\* De acordo com as novas regras ortográficas.

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Dr Hao Lei and colleagues write in Plos One: "Overall, our findings indicate that IAD has abnormal white matter integrity in brain regions involving emotional generation and processing, executive attention, decision making and cognitive control."

*O Dr. Hao Lei e seus colegas escreveram no "Plos One": "Além de tudo, nossas descobertas indicaram que o IAD tem integridade anormal de matéria branca nas regiões do cérebro envolvendo geração e processamento de emoções, atenção executiva, tomada de decisão e controle cognitivo."*

"The results also suggest that IAD may share psychological and neural mechanisms with other types of substance addiction and impulse control disorders."

*"Os resultados também sugerem que o IAD pode dividir mecanismos psicológicos e neurais com outros tipos de substâncias viciantes e desordens no controle do impulso."*

Prof Gunter Schumann, chair in biological psychiatry at the Institute of Psychiatry at King's College, London, said similar findings have been found in video game addicts.

*O professor Gunter Schumann, com cátedra em psiquiatria biológica no Instituto de Psiquiatria do "King's College", em Londres, disse que descobertas similares têm sido encontradas em viciados em 'video game'.*

He told the BBC: "For the first time two studies show changes in the neuronal connections between brain areas as well as changes in brain function in people who are frequently using the internet or video games."

*Ele disse para a BBC: "Pela primeira vez dois estudos mostram mudanças nas conexões neurais entre áreas do cérebro bem como mudanças na função do cérebro nas pessoas que estão frequentemente usando a internet ou 'video games'."*

Commenting on the Chinese study, Dr Henrietta Bowden-Jones, consultant psychiatrist and honorary senior lecturer at Imperial College London, said the research was "groundbreaking".

*Comentando o estudo Chinês, a Dra. Henrietta Bowden-Jones, consultora psiquiatra e conferencista honorária senior do "Imperial College London", disse que a pesquisa era inovadora.*

She added: "We are finally being told what clinicians suspected for some time now, that white matter abnormalities in the orbito-frontal cortex and other truly significant brain areas are present not only in addictions where substances are involved but also in behavioural ones such as internet addiction."

*Ela acrescentou: "Nós estamos finalmente falando o que os clínicos suspeitavam de algum tempo para cá, que as anormalidades na matéria branca no córtex órbito-frontal e outras verdadeiramente significativas áreas do cérebro estão presentes não somente em viciados onde substâncias estão envolvidas, mas também no comportamental de alguns como vício na internet."*

She said further studies with larger numbers of subjects were needed to confirm the findings.

*Ela disse que estudos futuros com maior número de sujeitos serão necessários para confirmar as descobertas.*

<http://www.bbc.co.uk/news/health-16505521>