COMMENTARY

Public Health perspectives on Cryptocurrency: The Good, The Bad and The Ugly

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Introduction

Digital currencies like bitcoin utilize encryption to secure financial transactions, verify their legitimacy, and limit supply. Because there is no central authority over it, like a government or bank, we say that it is decentralized. Instead, cryptocurrency transactions are recorded on a public digital ledger called a blockchain, which serves as a decentralized database that records all transactions made with the currency.(1) The use of cryptography ensures that the transactions are secure and anonymous, making it difficult to counterfeit or double-spend the currency. On online exchanges, cryptocurrencies can be purchased and traded, and they can also be used to purchase products and services online.(2)

There are risks and hurdles associated with cryptocurrencies, including as their volatility, regulatory ambiguity, and security concerns, even though they have the potential to revolutionize the way we think about money and banking. As with any investment or financial decision, it is important to do your research and consult with experts before investing in cryptocurrencies. There are many different types of cryptocurrencies, with new ones being created regularly.(1) Here are some of the most common types:

Bitcoin (BTC): In 2009, Bitcoin became the first and most well-known cryptocurrency. It employs a decentralized mechanism to authenticate transactions and is frequently used as a store of value and medium of exchange.

Ethereum (ETH): Ethereum is a distributed computing platform that facilitates the development of smart contracts and distributed applications (Dapps). Ether, its native coin, is used to settle purchases made on the network.

Litecoin (LTC): In 2011, Litecoin, a peer-to-peer cryptocurrency, was developed. It is based on the Bitcoin system, but has a faster block creation time and a different hashing algorithm.

Ripple (XRP): Ripple is a cryptocurrency that is used to facilitate cross-border payments and remittances. It is often used by banks and financial institutions to transfer funds between countries.

Bitcoin Cash (BCH): Bitcoin Cash is a 2017 split of the cryptocurrency Bitcoin. It offers higher block sizes, enabling speedier and less expensive transactions.

Tether (USDT): Tether is a stablecoin, which means it is designed to maintain a stable value against a specific asset, such as the US dollar. This makes it a useful tool for traders who want to protect themselves from the volatility of other cryptocurrencies.

Cardano (ADA): Cardano is a distributed platform with the goal of making the infrastructure for distributed applications more reliable and long-lasting. Payments made on the network are made with the platform's native cryptocurrency, which is known as ADA.

These are just a few examples of the many types of cryptocurrencies that exist. Advantages of cryptocurrencies are cryptocurrencies are decentralized, meaning they are not controlled by any central authority or government. This makes them less vulnerable to manipulation and censorship and provides greater transparency and security. To prevent counterfeiting and double spending, cryptocurrencies employ rigorous cryptographic algorithms to safeguard transactions and regulate the issuance of new units. This ensures that transactions are secure and anonymous and reduces the risk of fraud. Cryptocurrencies offer lower transaction fees compared to traditional payment methods such as credit cards and bank transfers. This makes it easier and cheaper to transfer money across borders. Cryptocurrency transactions can be processed almost instantly, depending on the network traffic and the specific cryptocurrency being used. This is especially beneficial for international transactions that can take days or even weeks using traditional payment methods. Cryptocurrencies can be accessed by anyone with an internet connection, regardless of location or background. This provides greater financial inclusion and access to banking services for people who may not have access to traditional banking services. Cryptocurrencies provide new investment opportunities and potential for high returns, as well as the ability to diversify investment portfolios.(3)

Overall, these advantages of cryptocurrency have led to its increasing popularity as a payment method and investment opportunity. However, it is important to consider the risks and challenges associated with cryptocurrencies as well before investing or using them for transactions. While there are several advantages to cryptocurrencies, there are also some significant disadvantages that should be considered before investing or using them for transactions.(4) Here are some of the main disadvantages: Cryptocurrencies can be highly volatile, with prices fluctuating rapidly and unpredictably. This makes them a risky investment and can also make it difficult to use them as a reliable currency.(3) Cryptocurrencies are not regulated by governments or financial institutions, which can lead to uncertainty and lack of consumer protection. This can make it difficult to resolve disputes or recover lost funds in the event of fraud or theft. While cryptocurrencies use advanced cryptographic techniques to secure transactions, they are not immune to hacking and theft. Cryptocurrency exchanges and wallets have been targeted by cybercriminals, leading to significant losses for investors. While the number of businesses accepting cryptocurrencies is increasing, they are still not widely accepted as a payment method. This can limit their usefulness for everyday transactions and make it difficult to exchange them for traditional currency. Cryptocurrency mining and transactions consume a significant amount of energy, which can have negative environmental impacts. Some cryptocurrencies, such as Bitcoin, are particularly energy intensive. Cryptocurrencies and blockchain technology can be complex and difficult to understand for many people. This can create a barrier to entry for new users and make it difficult to use them effectively.(2)

Overall, these disadvantages highlight the potential risks and challenges associated with cryptocurrencies. While they offer many benefits, it's important to carefully consider these drawbacks before investing or using them for transactions.

There are several health issues that can be associated with cryptocurrencies, either directly or indirectly, those are:

Mental health issues: Cryptocurrency trading can be stressful and anxiety-inducing, particularly due to the high volatility of prices. This can lead to mental health issues such as anxiety, depression, and addiction. In a study it was found that traders in the cryptocurrency market also reported increased psychological distress, perceived stress, and loneliness. (2)

Physical health issues: Cryptocurrency trading can be time-consuming and involve long periods of sitting in front of a computer screen. This can lead to physical health issues such as digital eye strain(5), neck(6) and back pain, obesity, and carpal tunnel syndrome.(7)

Scams and fraud: Cryptocurrency scams and fraud are common, and victims can suffer significant financial losses. This can lead to stress, anxiety, and other mental health issues, as well as financial hardship.(8)

Cybersecurity risks: Cryptocurrency wallets and exchanges can be targeted by hackers, leading to the theft of funds and sensitive personal information. This can cause stress and anxiety, as well as potential identity theft and other negative consequences.(2,9)

Money laundering and illegal activities: Cryptocurrencies can be used for money laundering and other illegal activities, which can have negative social and health impacts. Overall, while cryptocurrencies themselves do not directly cause health issues, their use can be associated with various health risks and challenges.(10) The impact of cryptocurrency on mental health is a topic that is still being researched, and the available evidence is mixed. Here are some potential positive and negative impacts of cryptocurrency on mental health these are(5):

On the positive side cryptocurrency can provide individuals with greater financial autonomy and control, which can have positive impacts on their mental health and well-being. Cryptocurrency communities can provide a sense of belonging and support, which can have positive social and psychological benefits. It is an innovative and rapidly evolving field, which can provide opportunities for individuals to explore new interests and skills and experience a sense of accomplishment and personal growth.

On the negative side- Cryptocurrency trading can be highly volatile and unpredictable, leading to feelings of anxiety, stress, and fear of missing out (FOMO). Some individuals may become addicted to cryptocurrency trading, leading to negative impacts on their mental health and well-being. Cryptocurrency scams and hacks can result in significant financial losses, which can have negative psychological impacts such as anxiety and depression. Cryptocurrency trading can be a solitary activity, which can lead to feelings of isolation and loneliness.

Conclusion

We conclude that investing regularly is not a risk factor for excessive conduct. Yet, people reporting excessive behavior and mental health issues utilized speedy online trading platforms and applications much more frequently. Particularly, the substantial correlation between cryptomarket trading and inappropriate behavior highlights the necessity to recognize the potential risks associated with real-time trading platforms by large multicentric trials.

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