



## Maladaptive Perfectionism: A Potential Risk Factor for Smartphone Addiction?

Jiang Long and Tieqiao Liu\*

Mental Health Institute of the Second Xiangya Hospital, Central South University, The China National Clinical Research Center for Mental Health Disorders, National Technology Institute of Psychiatry, Key Laboratory of Psychiatry and Mental Health of Hunan Province, Changsha, P. R. China

\*Corresponding author: Tieqiao Liu, Mental Health Institute, the Second Xiangya Hospital, Central South University, 139, Middle Renmin Road, Changsha, Hunan, P.R. China 410011, Tel: 867-315-292-158, E-mail: [liutieqiaochina@163.com](mailto:liutieqiaochina@163.com)

### Keywords

Smartphone addiction, Perfectionism, Risk factor, Personality trait

### To The Editor,

A Smartphone is a portable device that could be capable of various tasks on different occasions. With many powerful functions, smartphones permeate into our everyday lives at an astonishing pace. Surely, the smartphone could make our lives much more convenient, but it could also bring quite a few issues, especially when it is used improperly. Nowadays, smartphone addiction is not a novel construct any more. It could be defined as an inability to regulate one's use of the smartphone, which eventually involves negative consequences in daily life [1,2]. Smartphone addiction is becoming a major issue for modern society, for it may cause quite a few negative outcomes such as various kinds of psychological and social problems [3,4].

But what really make smartphone addiction happen, and how can we handle it? The answers to those questions remain unclear. As demonstrated in the previous studies, several personality characteristics might play an important role in the development and maintenance of mobile phone addiction, such as impulsivity, extraversion, and neuroticism [1,5,6], and these relationships has also been proven in the previous study related to Smartphone addiction [7]. However, to our best knowledge, there is no study which has discussed the relationship between perfectionism and mobile phone addiction, not to mention smartphone addiction. And we believe that maladaptive perfectionism which was overlooked in the previous studies might be an important risk factor for smartphone addiction.

Perfectionism, as a personality trait, is often characterized by a person's striving for flawlessness and setting excessively high performance standards, accompanied by overly critical self-evaluations and concerns regarding others' evaluations [8]. It is a multidimensional characteristic with both positive and negative aspects, and could be manifested in an adaptive or maladaptive way [9,10]. According to Frost et al., perfectionism includes six facets: concern over mistakes, personal standards, parental criticism, parental expectations, doubts about actions, and organization [10].

However, in its maladaptive form, perfectionism may play an important role in various mental disorders, such as obsessive-compulsive disorder (OCD) [11], eating disorders [12], workaholism [13], and exercise dependence [14]. Quite a few neuroimaging, neuropsychological and clinical studies suggested that a common mechanism exists between those disorders with uncontrolled, compulsive features [15,16]. Therefore, it is logically possible that maladaptive perfectionism could also be a risk factor for smartphone addiction which obviously shares many similar characteristics with the aforementioned disorders. Regarding facets of maladaptive perfectionism, it was consistently reported that concern over mistakes and doubts about actions were associated with various addiction-related behaviors in the previous studies [17-19], which imply that those two facets are most likely to play a part in generating and maintaining of smartphone addiction.

In addition, maladaptive perfectionism or its facets may impact on smartphone addiction via some possible mediating factors as well. Since depression, anxiety, and social stress were reported to be the mediating factors between maladaptive perfectionism and other health-related outcomes [20-22], it is reasonable to assume that maladaptive perfectionism could also have an effect on smartphone addiction via these potential mediating factors. For example, maladaptive perfectionism could possibly increase anxiety level [23,24], and then the higher anxiety level as a mediating factor might consequently lead to smartphone addiction [3].

In conclusion, maladaptive perfectionism could be a crucial risk factor for smartphone addiction, and it might potentially affect smartphone addiction both directly and indirectly. Further empirical studies in this area are highly recommended in the future, and the results may provide us a better understanding of smartphone addiction and deliver a promising intervention for it.

### Acknowledgment

This study was supported by the National Natural Science Foundation of China (Grant No. 81371465) and the Provincial Natural Science Foundation of Hunan (Grant No. 2015JJ2180).

## References

1. Billieux J (2012) Problematic Use of the Mobile Phone: A Literature Review and a Pathways Model. *Current Psychiatry Reviews* 8: 299-307.
2. Billieux J, Maurage P, Lopez-Fernandez O, Kuss DJ, Griffiths MD (2015) Can Disordered Mobile Phone Use Be Considered a Behavioral Addiction? An Update on Current Evidence and a Comprehensive Model for Future Research. *Current Addiction Reports* 2: 156-162.
3. Demirci K, Akgönül M, Akpınar A (2015) Relationship of smartphone use severity with sleep quality, depression, and anxiety in university students. *J Behav Addict* 4: 85-92.
4. Enez Darcin A, Noyan C, Nurmedov S, Yılmaz O, Dilbaz N (2015) Smartphone Addiction in Relation with Social Anxiety and Loneliness Among University Students in Turkey. *European Psychiatry* 30: 505.
5. Billieux J, Martial VDL, Rochat L (2008) The role of impulsivity in actual and problematic use of the mobile phone. *Applied Cognitive Psychology* 22: 1195-1210.
6. Billieux J, Linden MVd, d'Acremont M, Ceschi G, Zermatten A (2007) Does impulsivity relate to perceived dependence and actual use of the mobile phone? *Applied Cognitive Psychology* 21: 527-537.
7. Wu AM, Cheung VI, Ku L, Hung EP (2013) Psychological risk factors of addiction to social networking sites among Chinese smartphone users. *J Behav Addict* 2: 160-166.
8. Flett GL, Hewitt PL (2002) Perfectionism and maladjustment: An overview of theoretical, definitional, and treatment issues. In: G. L. Flett PLH, Perfectionism: Theory, research, and treatment. American Psychological Association, Washington, DC, 5-31.
9. Yang H, Stoeber J (2012) The Physical Appearance Perfectionism Scale: Development and Preliminary Validation. *Journal of Psychopathology & Behavioral Assessment* 34: 69-83.
10. Frost RO, Marten P, Lahart C, Rosenblate R (1990) The dimensions of perfectionism. *Cognitive Therapy and Research* 14: 449-468.
11. Frost RO, Steketee G (1997) Perfectionism in obsessive-compulsive disorder patients. *Behav Res Ther* 35: 291-296.
12. Franco-Paredes K, Mancilla-Díaz JM, Vázquez-Arévalo R, López-Aguilar X, Álvarez-Rayón G (2005) Perfectionism and eating disorders: a review of the literature. *European Eating Disorders Review* 13: 61-70.
13. Stoeber J, Davis CR, Townley J (2013) Perfectionism and workaholism in employees: The role of work motivation. *Personality & Individual Differences* 55: 733-738.
14. Hagan AL, Hausenblas HA (2003) The relationship between exercise dependence symptoms and perfectionism. *American Journal of Health Studies* 18: 133.
15. Lubman DI, Yücel M, Pantelis C (2004) Addiction, a condition of compulsive behaviour? Neuroimaging and neuropsychological evidence of inhibitory dysregulation. *Addiction* 99:1491-1502.
16. Volkow ND, Fowler JS (2000) Addiction, a disease of compulsion and drive: involvement of the orbitofrontal cortex. *Cereb Cortex* 10: 318-325.
17. Martinelli M, Chasson GS, Wetterneck CT, Hart JM, Björgvinsson T (2014) Perfectionism dimensions as predictors of symptom dimensions of obsessive-compulsive disorder. *Bull Menninger Clin* 78: 140-159.
18. Frost RO, Steketee G (1997) Perfectionism in obsessive-compulsive disorder patients. *Behav Res Ther* 35: 291-296.
19. Bulik CM, Tozzi F, Anderson C, Mazzeo SE, Aggen S, et al. (2003) The relation between eating disorders and components of perfectionism. *Am J Psychiatry* 160: 366-368.
20. Molnar DS, Sadava SW, Flett GL, Colautti J (2012) Perfectionism and health: A mediational analysis of the roles of stress, social support and health-related behaviours. *Psychol Health* 27: 846-864.
21. Akram U, Ellis JG, Myachykov A, Barclay NL (2014) The mediating role of anxiety and depression on the association between perfectionism, sleep-disturbances, and insomnia severity. *Journal of Sleep Research* 23: 130.
22. Egan SJ, Watson HJ, Kane RT, Mcevoy P, Fursland A, et al. (2013) Anxiety as a Mediator Between Perfectionism and Eating Disorders. *Cognitive Therapy & Research* 37: 905-913.
23. Saboonchi F1, Lundh LG, Ost LG (1999) Perfectionism and self-consciousness in social phobia and panic disorder with agoraphobia. *Behav Res Ther* 37: 799-808.
24. Joiner TE, Schmidt NB (1995) Dimensions of Perfectionism, Life Stress, and Depressed and Anxious Symptoms: Prospective Support for Diathesis-Stress but not Specific Vulnerability among Male Undergraduates. *Journal of Social and Clinical Psychology* 14: 165-183.