

Mobile telephone use by young people in Switzerland: the boundaries between engaged usage and behavioural addiction.

Background

In Switzerland, 98% of youngsters own a mobile phone (Willemse, Waller & Süss, 2010). This multifunctional hybrid medium holds a place of significant importance among adolescents. Some young people use their mobile phones with an intensity that crosses the border into behavioural addiction. In this study, addictive behaviour in relation to mobile phones was carried out according to Brown's classical model (Brown, 1993, 1997). He postulates six aspects of behavioural addiction: salience, conflicts with other activities, euphoria / relief, the development of tolerance, withdrawal symptoms and relapse symptoms. This list of addiction traits can be divided into two basic concepts (Charlton, 2002; Charlton & Danforth, 2007, 2009). One concept represents behavioural addiction ("core criteria"), and the other intensive use ("peripheral criteria"). Brown's six aspects are arranged according to the two concepts as shown in Table 1.

Table 1: Behavioural addiction and intensive usage in relation to online games (Charlton & Danforth, 2007, p. 1539)

Factor I: Behavioural addiction (core criteria)	Factor II: Intensive usage (peripheral criteria)
salience (at the behavioural level) conflicts with negative consequences relapse symptoms withdrawal symptoms	salience (cognitive) euphoria / relief / mood regulation development of tolerance

In Charlton and Danforth's study (N = 442), test subjects with behavioural addiction showed high scores for both factors. In contrast, intensive users only showed high scores for Factor II criteria, and not for Factor I. Restrained users showed below average scores for both factors.

Research Questions

Question I: Can the two-factor model of behavioral addiction be applied to mobile phone usage?

In addition to studying mobile phone usage, data was also collected on a range of adolescent psycho-social characteristics, including relationships with parents, extraversion, impulsivity, depression, peer pressure, stress perception, self-esteem, optimism and vitality.

Arising from this is **Question II:** How are the psychosocial concepts described above, and the demographic variables of gender and age related to restrained, intensive and addictive mobile phone usage?

Results

In this study, a total of 1,223 students (aged from 12 to 19 years old) from all over Switzerland were interviewed. A descriptive overview of the most frequently used mobile phone functions such as SMS and voice calls showed gender-specific differences in SMS usage but not in making phone calls. SMS is used more frequently by girls than by boys (see Figure 1).

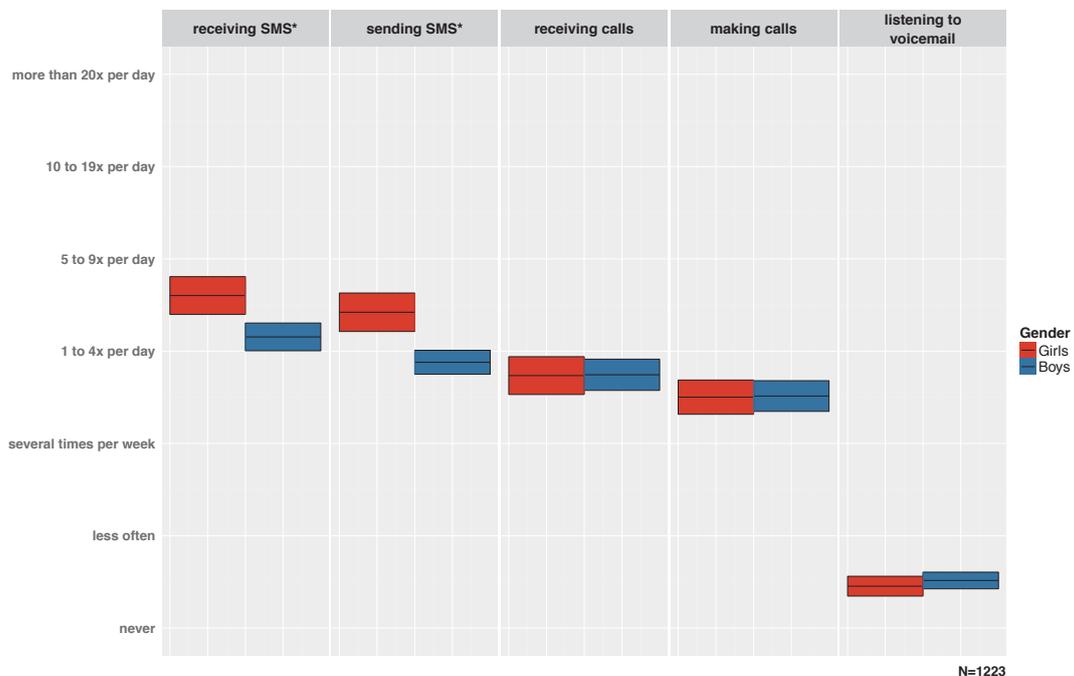


Figure 1: Frequency of use of the main features of mobile phones by gender

There are also some gender differences in the use of advanced mobile phone features: girls take photographs or make films more frequently than boys, while boys more often play offline / online computer games, retrieve E-mails and watch television or use their mobile phone as a navigational device or compass (see also Figure 2).

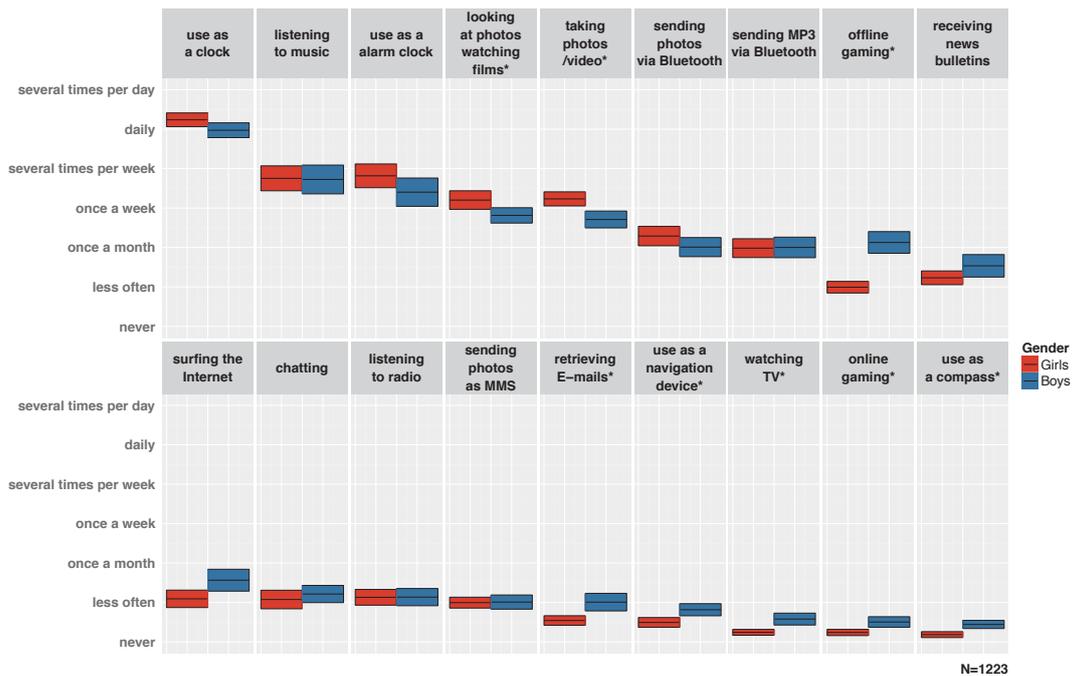


Figure 2: Frequency of use of the advanced features of mobile phones by gender

The first research question was answered by a confirmatory factor analysis. It proved possible to replicate the anticipated two-dimensional factor structure, albeit with minor adaptations. Brown’s model can thus be applied to mobile telephony. On the basis of the model, it was possible to quantify the user types as follows: non-users (2.2%), restrained users (52.3%), intensive users (40.2%) and those exhibiting addictive behaviour (5.3%).

The second research question was answered using logistic regression. The following indicators proved to be significant for the respective target variables:

- indicators of **addictive mobile phone behaviour** are: difficult relationships with parents, impulsivity and extraverted-active behaviour;
- **intensive mobile phone use** may be explained by neuroticism, extraverted-social behaviour, peer pressure and female gender;
- the group of **restrained users** can be described by positive relationships with parents, stability (slightly neurotic: anxious / fearful), introversion, low levels of peer-pressure and male.

Conclusions

The empirical findings of this study suggest that behavioural addiction in the context of mobile phone usage has its own characteristics that differ from, for example, addiction to the Internet. It seems advisable to adapt the therapy concepts currently used to fit the characteristics of mobile phone addiction. The authors believe it is

important in therapeutic practice to make the link between addictive mobile phone behaviour and specific personality traits such as impulsivity and activity, as well as family relationship issues (problematic child-parent relationships). These findings point to complex systemic interactions that must be taken into account in treatment plans. In addition to these risk factors for mobile phone addiction, the study indicates aspects that may be considered to be degrees of protection. A positive stable relationship with parents (or main confidant) appears to offer a preventative effect.

Literature

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