

# Smartphone Dependence of University Students and Parental Rearing Attitudes

Masahiro Toda, Graduate School of Human Life Sciences, Notre Dame Seishin University, Okayama, Japan & Department of Public Health, Wakayama Medical University, Wakayama, Japan

Satoko Ezoe, Shimane University Health Service Center Izumo, Shimane, Japan

Kanae Mure, Department of Public Health, Wakayama Medical University, Wakayama, Japan

Tatsuya Takeshita, Department of Public Health, Wakayama Medical University, Wakayama, Japan

## ABSTRACT

We investigated associations between smartphone dependence and perceived parental rearing attitudes. We administered a set of self-reporting questionnaires to 195 medical-university students designed to evaluate these factors. For females, the maternal high care/high protection group had statistically significantly higher scores for smartphone dependence than the low care/low protection group. No such relationship was apparent for male respondents. These findings suggest, at least for females, that smartphone dependence may be associated with perceived rearing attitudes.

## KEYWORDS

Parental Bonding Instrument (PBI), Parental Rearing Attitudes, Smartphone, University Students, Wakayama Smartphone-Dependence Scale (WSDS)

## INTRODUCTION

As mobile phones have become an established part of daily life, various social issues have arisen, including excessive use or even dependence, and objections to the use of mobile phones in public places. Smartphones, in particular, are more like tablet computers than mobile phones, and therefore, while bringing greater convenience, may also carry the potential for addictive use. In Japan, smartphones have rapidly come into widespread use and, now, are particularly widely used by people (87.0%) in their twenties (Ministry of Internal Affairs and Communications, 2016).

Technostress is considered a psychosomatic illness that involves either: anxiety over using technological equipment; or over identification with the computer (Brod, 1984). Viewing problematic smartphone use as a type of technostress, we recently developed a new scale for gauging smartphone dependence (we define it in terms of two factors: excessive use and use of smartphones in public places even when such use is considered to be a nuisance), the Wakayama Smartphone-Dependence Scale (WSDS), and confirmed its reliability and validity (Toda, Nishio, & Takeshita, 2015a). The scale consists of three dimensions, and we think it is a useful tool for rating smartphone dependence.

In past studies, using the WSDS, we have found associations between smartphone dependence of university students and factors such as demographic characteristics, personality traits, general health status, depressive state, or chronotype (Toda, Ezoe, Mure, & Takeshita, 2016; Toda, Nishio, & Takeshita, 2015a, 2015b). Other factors, however, may also contribute to smartphone dependence. One possibly important factor is the parent-child relationship during childhood. It has been suggested that parental mediation may play an important role in their children's digital media use (Clark, 2011). Although some previous studies investigated parental mediation regarding children's smartphone use, these studies targeted at parents with elementary age children (Hwang & Jeong, 2015; Hwang, Choi, Yum, & Jeong, 2017). In addition, in one study, we did find an association between childhood maternal relationship and mobile phone dependence (Toda et al., 2008). The respondents, however, rather than smartphones, used now largely obsolete feature phones and were all female.

In the present study, by analyzing the responses of university students, we investigated the associations between smartphone dependence and perceived parental rearing attitudes, which were evaluated by the Parental Bonding Instrument (PBI) (Parker, Tupling, & Brown, 1979), which evaluates fundamental parenting dimensions in terms of care and overprotection. It has also been suggested that parental rearing attitudes in childhood may be associated with depression or comprehensive health-related lifestyle in adulthood (Parker, 1979; Parker, 1983a; Toda, Kawai, Takeo, Rokutan, & Morimoto, 2008). The PBI is widely used in psychosocial studies of current interpersonal relationships (Kitamura, Kijima, Watanabe, Takezaki, & Tanaka, 1999; Parker, Barrett, & Hickie, 1992). We hypothesized that the childhood relationship with the parents may be associated with smartphone dependence in adolescents and that there may be a gender difference in these associations.

6 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: [www.igi-global.com/article/smartphone-dependence-of-university-students-and-parental-rearing-attitudes/216981](http://www.igi-global.com/article/smartphone-dependence-of-university-students-and-parental-rearing-attitudes/216981)

## Related Content

---

### Fear for Online Adolescents: Isolation, Contagion, and Sexual Solicitation

Myron Orleans (2010). *Adolescent Online Social Communication and Behavior: Relationship Formation on the Internet* (pp. 136-151).

[www.irma-international.org/chapter/fear-online-adolescents/39295](http://www.irma-international.org/chapter/fear-online-adolescents/39295)

### Exploring the Relationship Between Sport Fan Identification and Addiction to Digital Sports Media

John S. Clark and Jill K. Maher (2019). *Multigenerational Online Behavior and Media Use: Concepts, Methodologies, Tools, and Applications* (pp. 1018-1030).

[www.irma-international.org/chapter/exploring-the-relationship-between-sport-fan-identification-and-addiction-to-digital-sports-media/220988](http://www.irma-international.org/chapter/exploring-the-relationship-between-sport-fan-identification-and-addiction-to-digital-sports-media/220988)

### How Do Technology Application and Equity Impact Student Achievement?

Tak Cheung Chan (2011). *International Journal of Cyber Ethics in Education* (pp. 1-14).

[www.irma-international.org/article/technology-application-equity-impact-student/54449](http://www.irma-international.org/article/technology-application-equity-impact-student/54449)

### Are University Students Ready to Dump Their Textbooks?: A Survey on Student Attitudes Towards E-Readers and Tablet Computers

Mark van Heerden, Jacques Ophoff and Jean-Paul Van Belle (2012). *International Journal of Cyber Ethics in Education* (pp. 15-44).

[www.irma-international.org/article/are-university-students-ready-to-dump-their-textbooks/90235](http://www.irma-international.org/article/are-university-students-ready-to-dump-their-textbooks/90235)

### The Center for Mobile Communication Studies

Yi-Fan Chen (2012). *Encyclopedia of Cyber Behavior* (pp. 77-87).

[www.irma-international.org/chapter/center-mobile-communication-studies/64743](http://www.irma-international.org/chapter/center-mobile-communication-studies/64743)