



THE IMPACT OF SMART PHONE ADDICTION AMONG ADOLESCENTS IN SELECTED SCHOOLS IN THE PILIYANDALA EDUCATIONAL ZONE IN SRI LANKA

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INTRODUCTION

Smartphone addiction was defined as the uncontrollability of smartphone use (Cha & Seo., 2018). Globally, the prevalence of smartphone-associated harmful events is rising especially among children and adolescents. Since, unlike adults, adolescents have less ability to self-regulate, they are more prone to spending prolonged time using these devices (Lee et al., 2016). Therefore, adolescents are considered as a high-risk group for smartphone addiction (Cha & Seo et al., 2018). At present, smartphone addiction has become a major global concern among adolescents across many societies and highlighted as a major health issue (Youn et al., 2018).

As reported in previous studies in the global context, smartphone addiction may cause several negative effects on personal health and well-being, physical activities, academic performances, and interpersonal relationships (Ertemel & Ari., 2020). Further, addiction to smartphones leads to poor academic performance and mental health problems such as depression, anxiety, stress, poor sleep quality, and negative emotion in general ((Matar Boumosleh & Jaalouk, 2017; Rathakrishnan et al, 2021). Zhang et al. (2020) pointed out that school students with smartphone addiction show antisocial behaviors such as suicidal ideation, poor peer relationship, and involved crimes. Enwereuzor et al. (2016) found that there was a negative relationship between smartphone addiction and students' schoolwork engagement. Some physical effects related to smartphone addiction include restricted physical activities, and unintentional injuries (Tao et al., 2015). According to these findings smartphone addiction is a serious problem among school students worldwide.

Though there were a few studies conducted among undergraduates in relation to smartphone addiction (Chathuranga & Jaysundara, 2020; Praveeni & Wickramasinghe, 2021), evidence for the impact of smartphone addiction among school adolescents is lacking in the local context. Therefore, the present study aimed to examine the physical, psychological, and social impact of smartphone addiction among school children (16-17 years) in the Piliyandala Educational Zone, Sri Lanka.

METHODOLOGY

This was a descriptive cross-sectional study among school adolescents (n=375) from selected 10 schools in the Piliyandala Educational zone. The simple random sampling technique was utilized to recruit the sample from students (aged between 16-17 years) who studied in grade 11. Data were collected from April to May 2020 using content pre-tested, validated, self-administered questionnaires. Smartphone Addiction Scale Short Version (SAS SV) which consisted of a 6-point Likert scale (10 items) was used to assess smartphone addiction and used cut-off values of ≥ 31 and ≥ 33 for male and female participants respectively to determine the addiction. Participants' physical, psychological and social impacts of smartphone addiction were determined using 30 items and responses ranged on the 6-point Likert scale from strongly disagree (=1) to strongly agree (=6). Data were analysed using descriptive statistics on the SPSS 25th version. Ethical clearance was obtained from the National Institute of Health Sciences in Kalutara and permission for data collection was sought from authorities



of 10 selected schools in the Piliyandala Educational Zone. In addition to the assent's signature, written informed consent was obtained from each participant prior to data collection.

RESULTS AND DISCUSSION

Of the total of 375 adolescents participating in the study, the majority were females (n=225). Most of them were Sinhalese (n= 341), living in their homes (n=355, 94.7%) and in urban areas (n=274, 73.1%). All students used smartphones and 161(42.9%) of students had their own smartphones. Furthermore, 187(49.9%) students used their smartphones for 0-1.59 hours daily.

Reasons for using smartphones are shown in Figure 1. Accordingly, most adolescents used smartphones for educational purposes (88.5%, n=332). Moreover, 22 (5.9%) students were marked as addicted on the category of self-evaluation of smartphone addiction.

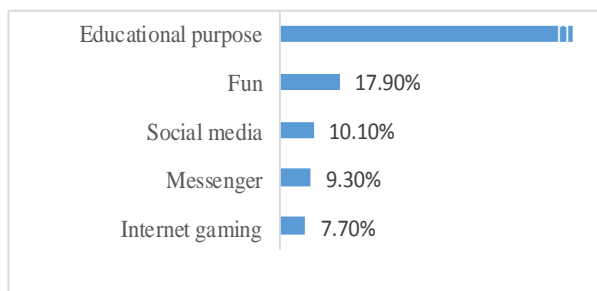


Figure 1: Purposes of Using Smartphones (N=375)

Prevalence of Smartphone Addiction Among School Children

Of the total 375 of the total sample, 92 (24.5%) school children were found to be addicted to smartphones. This addiction percentage is comparatively higher than those shown in Korea (13.5%) (Lee et al, 2017) and lower than China (39.7%) (Liu et al, 2022) studies. According to the findings, the total mean±SD score of the SAS SV scale was 25.98±8.16. Based on Kwon et al. (2013), smartphone addiction cut-off values of ≥31 and ≥33 were used for male and female participants, respectively. Accordingly, 53.3% of male children (n=49) were addicted to smartphones. Based on the responses to the statement of “self-evaluation” of those addicted to smartphones, 16 (17.4%) of children accepted that they were addicted to smartphones. Furthermore, 51 (55.4%) of smartphone-addicted children had their own smartphones. Moreover, 32 (34.8%) of addicted students used smartphones for more than 3 hours per day.

Physical Impact of Smartphone Addiction

Findings of the physical impact of smartphone addiction are shown in Figure 2. The mean percentage of the physical impact of smartphone addiction was 44.45 %. A higher proportion of children experienced light-headedness or blurred vision while using smartphones (63.04%), more engaged in smartphones than physical activities (53.26%). A considerable number of children in the present study had wrist or neck pain (50%). As revealed by Baabdullah et al. (2020), there was a correlation between smartphone usage and hand pain.

Psychological Impact of Smartphone Addiction

Findings of the psychological impact of smartphone addiction are shown in Figure 3. The mean percentage of the physical impact of smartphone addiction was 38.04%. A higher proportion of children feel angry or anxious when the mobile phone breaks down or is stuck (67.39%) and feel anxious if they are not using a smartphone (47.82%). As reported in an Iranian study (Alavi et al., 2020) depression, anxiety, and dependent personality disorders increase with smartphone addiction.



Figure 2: Physical Impacts of Smartphone Addiction (N=92)

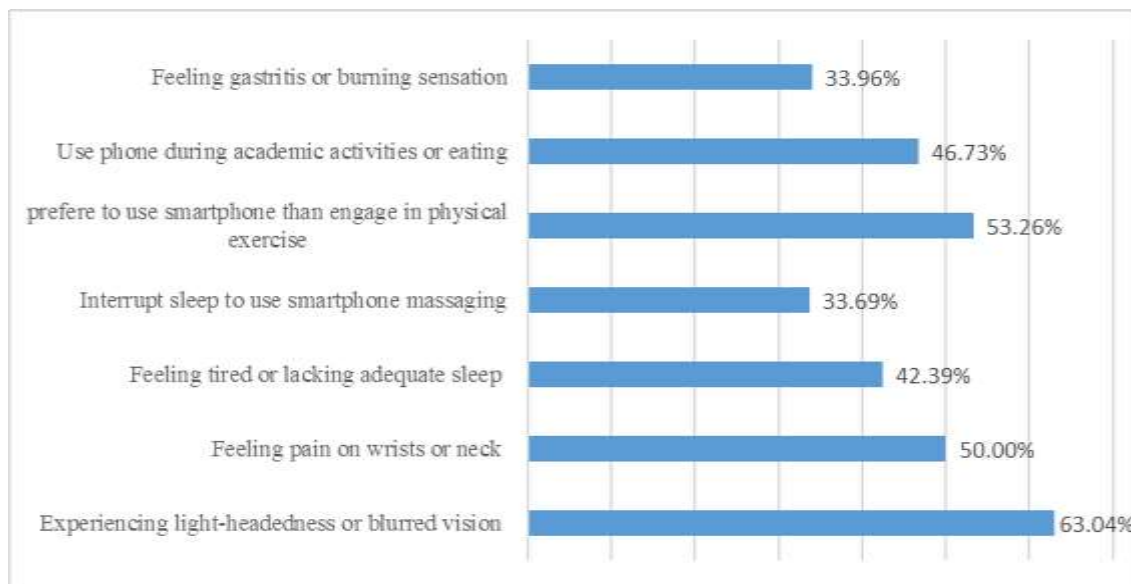
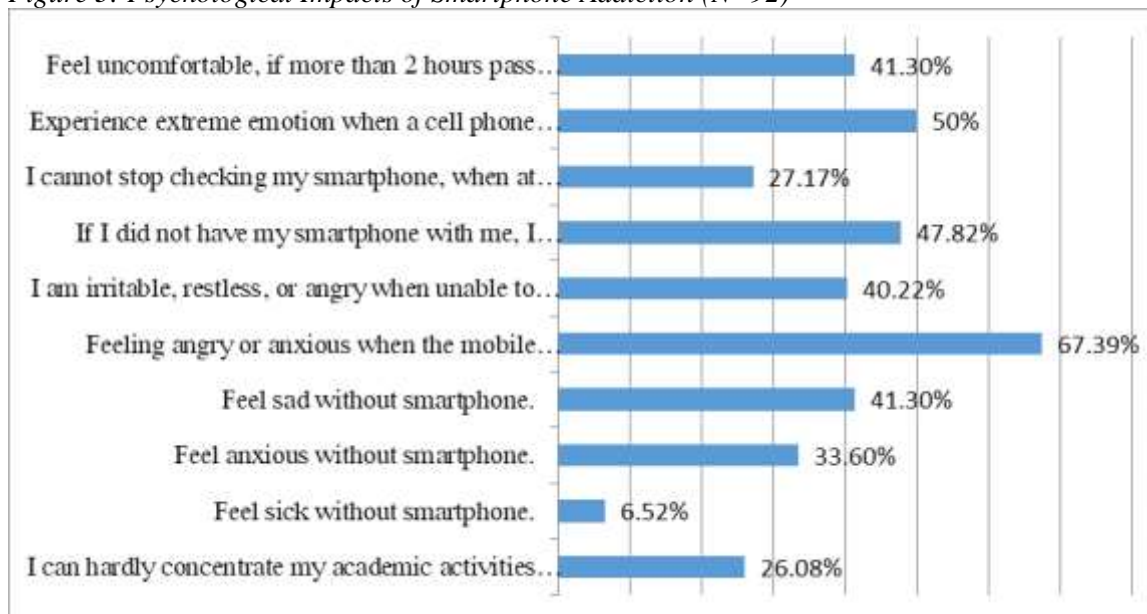


Figure 3: Psychological Impacts of Smartphone Addiction (N=92)

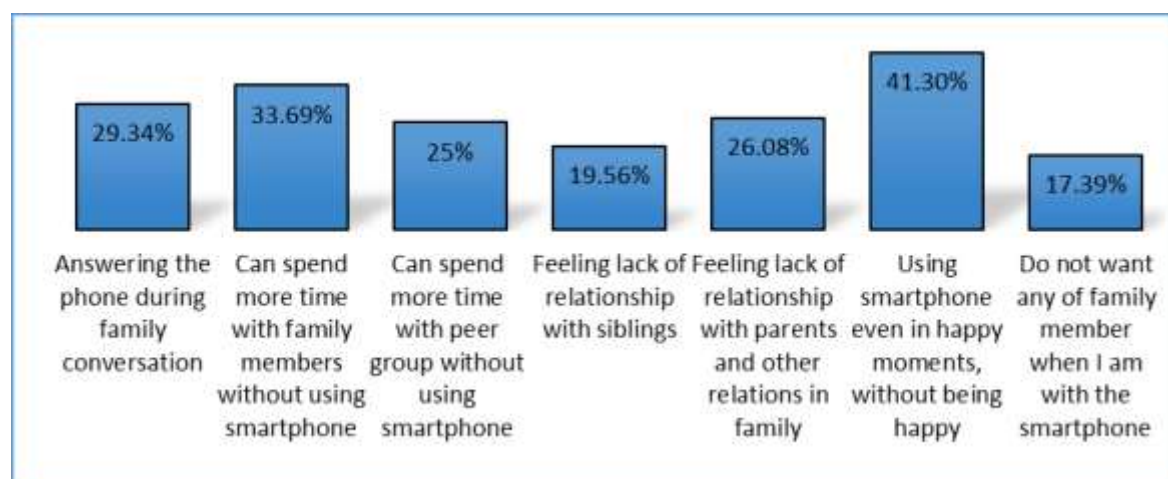


Social Impact of Smartphone Addiction

Findings of the psychological impact of smartphone addiction are shown in Figure 4. The mean percentage of the social impact of smartphone addiction was 26.84 %. A higher proportion of children used smartphones even in happy moments, without being happy (41.3%), and feeling anxious if they are not using smartphones (47.82%). As reported in an Iranian study (Alavi et al., 2020) depression, anxiety, and dependent personality disorders increase with smartphone addiction. Feeling a lack of closeness with parents and other relations and disturbing family conversations due to answering the phone are also reported to a considerable extent which demonstrates the social impact of smartphone addiction.



Figure 4: Social Impacts of Smartphone Addiction (N=92)



CONCLUSIONS

Smartphone addiction seems to be a considerable issue among school adolescents. Furthermore, smartphone-addicted students have shown problems related to its physical, psychological, and social impact such as lack of physical activities, light-headedness, blurred vision, wrist or neck pain anxiety, anger, and lack of relationship with parents and relations. Therefore, it is essential to improve their awareness of the consequences of smartphone addiction and strategies that can be used to reduce it. Further studies are necessary.

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