PRZEGLĄD PSYCHOLOGICZNY – THE REVIEW OF PSYCHOLOGY
2024, TOM 67, NR 3, 149–160
DOI: 10.31648/przegldpsychologiczny.11174

Relationship of Phubbing to Self-Esteem in the Context of Perceived Phubbing Behavior of Parents

Bogumiła Weimann
University of Zielona Góra
https://orcid.org/0009-0004-8451-8380

Malwina Cholewa[1]
https://orcid.org/0009-0000-4666-1865

Paweł Kleka
University of Zielona Góra
https://orcid.org/0000-0003-0841-0015

Abstract

Purpose: Phubbing is a phenomenon whereby a person looks at their mobile phone and uses it while talking to others, thereby avoiding interpersonal communication (Karadağ et al., 2015). The study aimed to investigate whether phubbing by parents correlates with phubbing by their adult children, whether phubbing by parents is associated with children's self-esteem (in adulthood) and whether children's self-esteem (in adulthood) is correlated with their level of phubbing.

Method: 107 people from Poland participated in the study. The authors used the Rosenberg Self-Esteem Scale (SES), the Generic Scale of Phubbing (GSP), and self-report questions to verify the level of phubbing used by the subjects' parents.

Results: The results showed a positive correlation ($r = .37$, $p < .001$) between parents' phubbing and children's phubbing, as well as between children's self-esteem and phubbing by parents ($r = .37$; $p < .001$) and between children's phubbing and their self-esteem ($r = .46$, $p < .001$).

Conclusion: The study confirms the modelling role of parental phubbing for the intensity of children's phubbing, but at the same time, it does not show a negative role in children's

[1] Correspondence address: malwina.cholewa12@gmail.com.

self-esteem. Furthermore, the positive correlation between children's phubbing and self-esteem contradicts previous results. Children's phubbing partially mediates the relationship between parents' phubbing and their self-esteem, which requires further research to understand this mechanism more fully.

Keywords: phubbing, phubber, self-esteem, parenting, smartphone

The effects of using electronics, mainly smartphones, can be seen in changes of quality and satisfaction with interpersonal relationships. On the one hand, these changes have positive effects, as they allow loved ones to stay in contact when they are not around, but on the other hand, when mobile phones are used in the company of loved ones, they can distract from the conversation at hand and thus deteriorate contact and lead to conflict situations or cause irritation (Beukeboom & Pollmann, 2021). An example of such a relationship is the child's bond with a parent, caregiver or other attachment figure. Technologies can stimulate a child's psychosocial development, but they can also pose a risk to the child – the risk depends on the context of their use. As Kowaluk-Romanek (2019) examined, this is linked to the child's level of media competence, their behavioural responses in risky situations and depends on adults behaviour and actions. A child's relationship with his or her closest adults builds the foundation of a young person's development and helps to create a view of the world. In this context, the problem with the commonly observed negative effects of smartphone misuse causes concern. The rationale for this approach can be found in social learning theory, which states that observational learning encompasses a very wide range. Social learning theory, developed by Albert Bandura, has its roots in the behavioural approach. Within this theory, the mechanisms responsible for the emergence of new behaviours, their maintenance, change and disappearance are analysed (Wojciszke, 2011).

The misuse of electronics in interpersonal communication can take negative forms. An example of such behaviour is *phubbing*[2], which is the intentional ignoring of those around you by focusing your attention on your mobile phone. The effects of phubbing are many (Al-Saggaf & O'Donnell, 2019), for example negative emotions in those around the so-called phubber or a reduction in the quality of the relationship between partners.

Empirical data reveals a whole spectrum of negative effects of phubbing behaviour – including in children's relationship with their parents. Research by Liu and associates (2019) demonstrates a link between parental manifestation of *phubbing* and the occurrence of smartphone addiction in minors. The research shows that phubbing positively correlates with increased smartphone addiction and that subjective norm and intention to become addicted influence the development of

[2] The term phubbing itself was invented and was used as part of a language experiment conducted by Macquarie Dictionary to describe the habit of ignoring someone in favour of that person's use of a smartphone. A phubber, on the other hand, can be described as a person who ignores others by using their phone in their company.

addiction in children. The researchers explain that this phenomenon may occur because phubbing behaviour of parents serves as a model for children's behaviour. They surmise that children may develop phubbing behaviour by planning, replicating and performing certain activities that will consequently be incorporated into their daily behaviour, resulting in staying with their parents (Liu, 2019). The results presented by the authors lead us to conclude that parental behaviours and the norms they present to children model in them behaviours that are elements of phubbing and consequently smartphone addiction. From the perspective of child development and raising children in an age of widespread availability of electronic devices, this implies a danger that many adults may not be aware of.

This phenomenon is not obvious. The authors of the aforementioned studies, when interpreting their results, highlight that other empirical work provides contradictory results. Xie and Xie (2020), in their study of the relationship between parental phubbing and depressive symptoms in adolescent children (average age around 13 years old), indicate that this one may work by lowering parental warmth, which reduces relationship satisfaction and causes depression in the child. A second – alternative – explanation attributes parental phubbing to inducing feelings of rejection, which secondarily causes depression. Based on the results of their study, the authors highlight how the rules operating in a family can significantly influence the development of phubbing in children. In another study, Ivanova and associates (2020) tested the strength of the correlation between mobile device addiction, phubbing (communication disorders and phone obsession), depression and loneliness. The main aim of the study was to determine whether there is a relationship between smartphone addiction and depression in male and female students and whether phubbing is a mediator of this relationship. The results presented by the authors indicate that there are no significant gender differences in smartphone addiction, communication disorders, depression and loneliness. The researchers observed that women were more obsessed with phone use and highlighted a positive correlation between smartphone addiction and communication disruption, as well as the occurrence of depression and levels of loneliness. However, the study did not find that gender moderated relationship between the variables. Instead, it was found that phubbing functions as a mediator of the relationship between smartphone addiction and depression, with loneliness as a moderator of this mediation, whose moderating effect is asymmetrically dependent on gender: in men, high loneliness increases the mediating role of phubbing, which translates to depression to a greater extent, while in women, the mediating effect analysed weakens as loneliness increases – meaning that in this group, phubbing correlates less strongly with depression. However, the researchers point out certain limitations of the study, such as the narrowing down of the subjects to students only, and point out that the study was cross-sectional – which makes it impossible to interpret the results in terms of cause and effect.

Another noteworthy study that confirms that parental phubbing increases adolescents' smartphone addiction is that of Xie and associates (2019), which analysed the role of parent-child attachment, the role of peers exhibiting deviant behaviour and gender. Family and peers are important factors influencing adolescents' use of media and electronic devices. Based on social learning theory and

informal social control theory, this study proposed a moderated mediation model to test how parental phubbing influences adolescents' smartphone addiction. The results of this study showed that parental phubbing increased adolescent smartphone use through lower parent-child attachment and increased risk of belonging to deviant peers, and that gender moderated the mediating effect. In particular, the indirect effect of parental phubbing on adolescents' dependence on smartphones by deviant peers was greater in boys than in girls. From this study, we can learn that parental phubbing is positively correlated with deviant peer behaviour and smartphone addiction, but negatively correlated with attachment in the parent-child dyad. Child-parent attachment is negatively correlated with behaviours displayed by deviant peers and smartphone addiction. Behaviours displayed by problematic peers were positively correlated with smartphone addiction. However, this study had several drawbacks that should be mentioned here: a) the model proposed by the researchers that worked in the family-peer model was not tested in other groups, b) the limitation of the results by the cross-sectional nature of the study, and c) the low effect size that detracts from the mediation effect, which suggests that the results of this study should be interpreted with caution.

Self-esteem can be defined as a subjective assessment of one's self-worth as a person – the extent to which one perceives oneself as a good, competent and decent person (Wang et al., 2020). In a study presented by Wang and Associates in 2020, the authors indicate that the self-esteem of the adolescents studied moderated the association between phubbing by parents and depressive symptoms. Adolescents with low self-esteem and high levels of parental phubbing manifested higher levels of depressive symptoms than adolescents with high levels of self-esteem. The authors also mention that those with higher self-esteem are more satisfied with their lives and the phubber behaviour used by their parents does not have such a destructive effect on them. However, the researchers point out that it is not entirely clear when parental phubbing significantly increases depressive symptoms in adolescents.

Using this knowledge and the fact that the researchers conducted their study on adolescents whose parents used mobile phones, we decided to see how phubbing by parents using other media (measured declaratively) correlates with the self-esteem of the adults who took part in our study.

Taking the above-mentioned studies into account, the present study was devoted to testing the incidence of 1) the relationship between phubbing by parents and phubbing by their adult children on a group of Poles, and 2) the incidence of the relationship between phubbing by parents and their adult children's self-esteem, i.e. attitudes towards themselves.

Hypotheses

In embarking on the study, we posed the following hypotheses:

H1: Parents' use of phubbing positively correlates with children's use of phubbing in adulthood.

H2: Parental phubbing is negatively correlated with children's self-esteem.
H3: Children's self-esteem is negatively correlated with the intensity of their phubbing.

Methods

In the following study, phubbing was framed as behaviour aimed at ignoring those around someone by using a smartphone, radio, newspaper or other media. This broad definition is due to the inclusion of adults' recollections of their parents in the study. With this in mind, it is important to remember that the most popular forms of media 20 or 30 years ago were different from those used today. Also, the former forms of media today are often contained in smartphones (e.g. newspapers, magazines, radio, etc.).

Study Design and Procedure

The survey was conducted online and created on the Google Forms website, and the results were collected from October to November 2021. A link to the survey page was sent out to potential respondents and posted in online groups, including student groups at the University of Zielona Góra. Respondents answered the questions by clicking on the appropriate response option, according to previously obtained instructions posted on the survey. If a response was missing, the form reminded them to go back and complete the missing data. Participants were not compensated for completing the survey. They were informed that their data would be kept confidential before taking the survey. Participants invited to the survey were informed that they could opt out of responding at any time during the study and agreed to participate if they proceeded to answer the questions.

Measurement

Two research standard scales and one self-constructed scale were used in the study.

Self-esteem was measured using the Rosenberg Self-Esteem Scale (SES) in the Polish language version (Łaguna et al., 2007). The questionnaire consisted of 10 questions the respondent had to answer on a 4-point scale, where 1 – *strongly disagree with the statement presented*, and 4 – *strongly agree with the statement presented*. The reliability of the results, as measured by Cronbach's alpha coefficient in the sample, was very high at .92 ($CI_{.95}$ [.89, .94]).

The Generic Scale of Phubbing (GSP) (Chotpitayasunondh & Douglas, 2018), translated independently by two researchers, was used to investigate adult phubbing. A translation and retranslation of the GSP scale questions were also

conducted, revealing minor discrepancies. Despite the minor differences, the meaning of the questions remained the same. After discussing the discrepancies in the translation, the version that was the best form of the operationalised variable was chosen. This scale consists of 15 questions answered by the subject through a 7-point scale, where one is *never*, and seven is *always*. The reliability of the results, as estimated by Cronbach's alpha coefficient, was high at .89 ($CI_{0.95}$ [.86, .92]).

In addition, seven questions (Appendix 1) were used to explore whether the subjects' parents used phubbing. These questions referred to the respondents' memories and related to different media types. The researchers created the questions based on observations and information about the media used in the past. Responses were coded on a 5-point scale (binary responses *Yes/No* as 5 and 0), and the total score was used to indicate parental phubbing. The reliability of responses in the sample measured by Cronbach's alpha coefficient was high at .78 ($CI_{0.95}$ [.70, .83]). Confirmatory factor analysis confirmed the validity of the assumption of a single factor responsible for the variance in item scores ($chi^2(14) = 221.31$, $p < .001$, TLI = .921, RMSEA = .083, $CI_{0.90}$ [.017, .138]). Apart from a low factor loading for the first question ($\lambda = .39$), the remaining questions had factor loadings ranging from .50 to .80.

Sample

A total of 107 individuals from Poland aged between 19 and 55 years ($M = 27.8$, $SD = 9.52$, $Md = 24$) took part in the study, with those aged 25 years or older accounting for 36% of the sample. All subjects voluntarily participated in the study and met the age of majority requirements. Results were compiled from their responses. Slightly more than 80% of all people surveyed were women, while men accounted for less than 20%. More than half of the people surveyed, 56%, declared that they had completed secondary education, 26% had completed a master's degree, and 15% had a bachelor's degree. Those with vocational or secondary education who do not have a high school diploma accounted for less than 3% of the sample. In terms of demographics, respondents living in the country accounted for 28% of all respondents, those living in cities with more than 150 000 inhabitants – 26.2%, up to 150 000 – 16.8%, up to 50 000 – 15%, and up to 10 000 – 14%.

Results

The distributions of the outcomes of the study variables are close to symmetrical, with negative kurtosis values not exceeding the <-2, 2> range, allowing parametric correlation coefficients to be used for hypothesis testing (Table 1, p. 155).

The parametric Pearson's r linear correlation coefficient was used to test the hypotheses. It was used to test all of the following correlations:

1. The correlation between parental phubbing, measured by the set of questions created by the authors, and children's phubbing, i.e. scores on the GSP questionnaire;
2. The correlation between children's self-esteem and the intensity of their parents' phubbing;
3. The correlation between children's self-esteem and the intensity of their phubbing.

The results are statistically significant at the assumed level of statistical significance $p < .05$. They indicate a positive correlation between parents' phubbing and children's phubbing ($r = .37$, $p < .001$), between children's self-esteem and parents' phubbing ($r = .37$, $p < .001$), and between children's phubbing and their self-esteem ($r = .46$, $p < .001$). The relationships are shown in scatter plots (Figure 1).

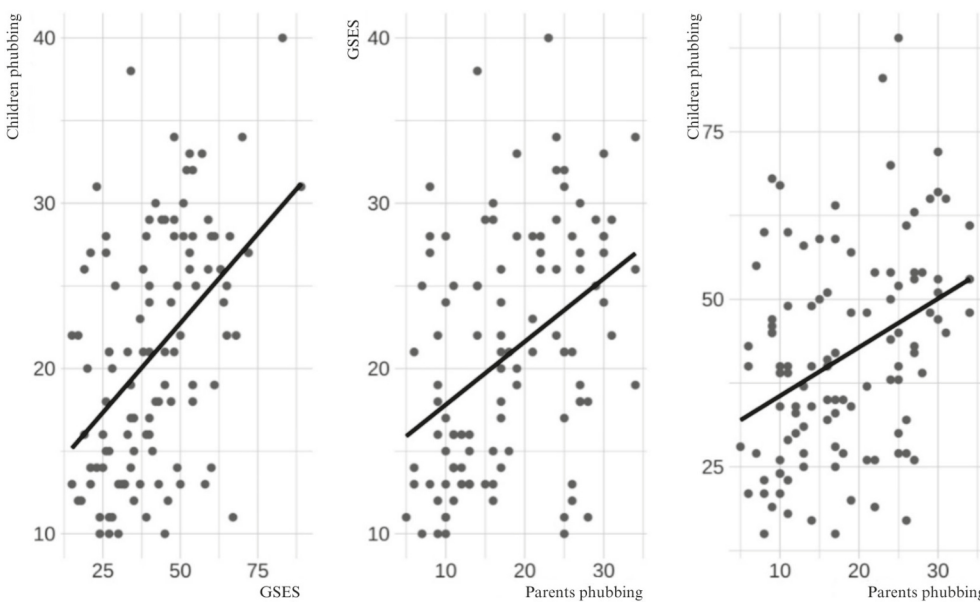
Table 1

Distribution Parameters for the Results of the Analysed Variables

Variable	Mean	*SD*	Median	Skewness	Kurtosis	SE
Self-esteem	20.90	7.27	21	0.30	–0.89	0.70
Phubbing	41.46	15.60	40	0.45	–0.23	1.51
Parental phubbing	18.09	7.87	17	0.23	–1.20	0.76

Figure 1

Scatter Plots of the Pairs of Variables Including the Regression Line



Discussion

The main aim of our study was to examine whether phubbing used by parents shows covariation with pubbing used by their adult children and with those children's self-esteem. Following H1, phubbing used by parents positively correlates with phubbing used by children. This is in line with the results of previous studies. This correlation finds its justification in Bandura's social learning theory. According to this construct, the child learns expected norms through observation – behaviour is being modelled through observing parents (Bandura, 2007). Similar results to ours were obtained by Liu and colleagues (2019), indicating that parental phubbing positively correlates with their children's phubbing and may lead to increased dependence on smartphone use and thus the probability of phubbing in their daily lives. It should be noted that the aforementioned authors studied children in their teens (the average age of the students was 15 years old) who had been observers of their parents using mobile phones.

Our hypothesis assuming a negative correlation between children's self-esteem and the intensity of phubbing used by parents (H2) was not confirmed. The results of our study indicate a positive correlation between the aforementioned variables. This is contrary to previous reports (Xie & Xie, 2019). The difference in the results may be explained by the age of the subjects. The study reported here refers to adults, whereas researchers Xie and Xie focused on adolescents, whose average age was around 13 years old. We can hypothesise that a retrospective study done on adults does not reflect the impact that phubbing parents directly had on their children – something worth revisiting in future studies.

The most interesting results were obtained in relation to the hypothesis assuming a negative correlation between self-esteem and the amount of phubbing (H3). The study proves an inverse relationship – the correlation came out positive, moderate. This suggests that approximately 13% of the variance in phubbing is a result of the level of self-esteem. This is a different conclusion from those put forward by other researchers (Ivanova et al., 2020).

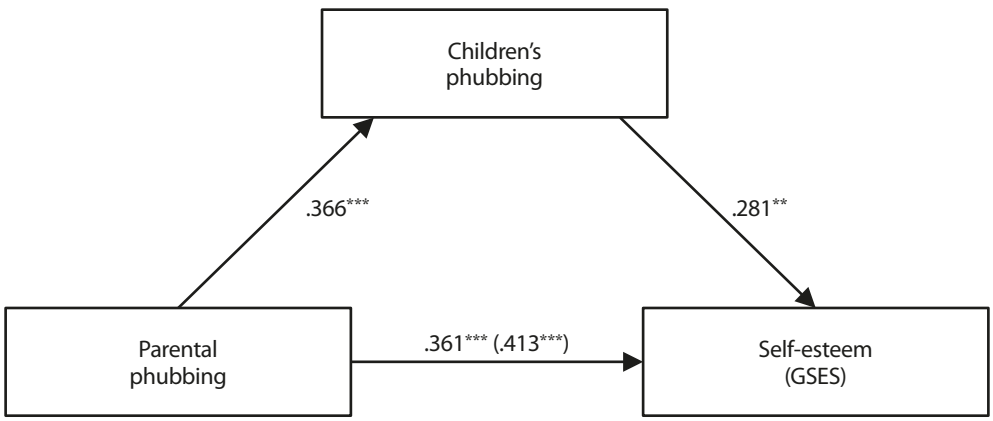
It may be wondered whether the level of phubbing plays a mediating role in the relationship between parental phubbing and children's level of self-esteem and the reported positive correlations between the variables are not apparent. Mediation analysis using a non-parametric bootstrap to assess the significance of the averaged indirect effect showed that the size of the indirect effect accounts for 32% of the total effect (Figure 2, p. 157). That is a moderately large magnitude, and since the relationship between parental phubbing and respondents' self-esteem in such a model is significant and positive, we found no suppression effect. That outcome still does not explain the reason why we reached inverse correlation coefficients between the study variables.

An alternative explanation for the results could be based on the assumption of the development of psychological resilience as a result of contact with phubbing parents. Contact with such parental attitudes would not only develop a tendency to exhibit such behaviour in the child (X-M pathway in our model), but also enhance coping with difficulties, adversity and stress, consequently resulting in positive adaptation in difficult or traumatic situations, which is expressed in positive

associations with self-esteem (Masten, 2001). However, this remains a far-fetched assumption, verification of which would require targeted research aimed at testing this thesis while controlling e.g. personality and temperamental variables.

Figure 2

Standardised Regression Coefficients for the Relationship Between Parental Phubbing and Children's Self-Esteem Mediated by Children's Phubbing Levels



Annotation. The value in brackets represents the total standardised regression coefficient between variables, the value prior to the brackets represents the value of this coefficient while controlling the level of phubbing by children.

When interpreting the results of our study, its limitations must be acknowledged. A strong advantage of our survey is that the majority of participants were young adults, increasing the likelihood that their parents may have had greater access to both paper and electronic media, such as televisions and mobile phones. The survey was posted out to respondents online via social media. This method allows the survey to reach significant distances in a way that is easy and accessible for most people. However, it is worth noting that by recruiting respondents this way, there is an increased chance of responses coming from people who are dependent on social media and, by extension, various forms of media in general. In order to address these possible biases in the results, the follow-up study should be conducted in parallel in different forms in order to obtain as many responses as possible from a diverse range of respondents. Another limitation of the reported study is the reliance on retrospective memories of parental phubbing, which may have influenced the results. With no possibility of empirically exploring this phenomenon, it was obvious to rely on respondents' perceptions. This, however, increases the possibility of distorting data actually occurring by answering the questionnaire based on false memories, which may affect the results of the study. When undertaking a similar study next time, it would be worth reflecting on how to verify the data obtained or use more recent memories of respondents to avoid the possibility of false memories. In addition, the

levels of phubbing among parents in the study we conducted were differently operationalized and reported as relatively low compared to the high levels in their adult children. Therefore, it is worth considering whether the parents' not-so-high levels of phubbing actually had a direct, proportional effect on their adult children's self-esteem, or whether it was related to other factors that were not included in our study. In future studies on similar topics, it would be valuable to take into account possible mediating variables, such as e.g. socioeconomic status, quality of family relationships or individual characteristics of parents and their children (e.g. age differences), which may be relevant to the results obtained. On the one hand, families with higher socioeconomic status may have better access to resources, e.g. psychological support, which may be related to their children's self-esteem independently of the parents' level of phubbing. On the other hand, low socioeconomic status may be associated with higher levels of stress in children and less support from relatives, which may contribute to both higher levels of phubbing by parents and lower self-esteem of their children. The inclusion of environmental variables in the study could offer an opportunity to better understand and explore the underlying mechanism of the meaning of phubbing and possibly identify strategies for support.

The survey was cross-sectional, which means that the findings cannot be interpreted as proving cause-and-effect relationships, nor can the influence of various interfering variables be excluded. Attention should also be drawn to the significant predominance of women among the respondents and the fact that a disproportionate number of respondents have high school education with a Matura exam – this suggests a low representativeness of the sample for the general population. The survey was carried out in Poland only, thus it would be worth broadening it to a more global scale in order to verify whether the relationships we found are universal or specific only to certain countries.

References

Al-Saggaf, Y., & O'Donnell, S. (2019). Phubbing: Perceptions, reasons behind, predictors, and impacts. *Human Behavior and Emerging Technologies*, *1*(2) 132–140. http://dx.doi.org/10.1002/hbe2.137

Bandura, A. (2007). *Teoria społecznego uczenia się* [*Social Learning Theory*]. Wydawnictwo Naukowe PWN.

Beukeboom, C. J., & Pollmann, M. (2021). Partner phubbing: Why using your phone during interactions with your partner can be detrimental for your relationship. *Computers in Human Behavior*, *124*, Article 106932. http://dx.doi.org/10.1016/j.chb.2021.106932

Chotpitayasunondh, V., & Douglas, K. M. (2018). Measuring Phone Snubbing Behavior: Development and Validation of the Generic Scale of Phubbing (GSP) and the Generic Scale of Being Phubbed (GSBP). *Computers in Human Behavior*, *88*, 5–17. http://dx.doi.org/10.1016/j.chb.2018.06.020

Ivanova, A., Gorbaniuk, O., Błachnio, A., Przepiórka, A., Mraka, N., Polishchuk, V., & Gorbaniuk, J. (2020). Mobile Phone Addiction, Phubbing, and Depression Among Men and Women: A Moderated Mediation Analysis. *The Psychiatric Quarterly*, *91*(3), 656–668. https://doi.org/10.1007/s11126-020-09723-8

Karadağ, E., Tosuntaş, Ş. B., Erzen, E., Duru, P., Bostan, N., Şahin, B. M., Çulha, İ., & Babadağ Savas, B. B. (2015). Determinants of phubbing, which is the sum of many virtual addictions: a structural equation model. *Journal of Behavioral Addictions*, *4*(2), 60–74. https://doi.org/10.1556/2006.4.2015.005

Kowaluk-Romanek, M. (2019). Cyfrowe dzieciństwo. Nowe technologie a rozwój dziecka [Digital childhood. New technologies and child development]. *Edukacja – Technika – Informatyka* [*Education – Technology – Information Technology*], *27*(1), 194–201. http://dx.doi.org/10.15584/eti.2019.1.25

Liu, R.-D., Wang, J., Gu, D., Ding, Y., Oei, T. P., Hong, W., Zhen, R., & Li, Y.-M. (2019). The Effect of Parental Phubbing on Teenager's Mobile Phone Dependency Behaviors: The Mediation Role of Subjective Norm and Dependency Intention. *Psychology Research and Behavior Management*, *12*, 1059–1069. https://doi.org/10.2147%2FPRBM.S224133

Łaguna, M., Lachowicz-Tabaczek, K., & Dzwonkowska, I. (2007). Skala samooceny SES Morrisa Rosenberga – polska adaptacja metody [Morris Rosenberg's SES Self-Assessment Scale – Polish Adaptation of the Method]. *Psychologia Społeczna* [*Social Psychology*], *2*(4), 164–176. https://www.researchgate.net/publication/285640590_Skala_Samooceny_SES_Morrisa_Rosenberga_-_polska_adaptacja_metody

Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist*, *56*(3), 227–238. https://doi.org/10.1037/0003-066X.56.3.227

Wang, X., Gao, L., Yang, J., Zhao, F., & Wang, P. (2020). Parental Phubbing and Adolescents' Depressive Symptoms: Self-Esteem and Perceived Social Support as Moderators. *Journal of Youth and Adolescence*, *49*, 427–437. https://doi.org/10.1007/s10964-019-01185-x

Wojciszke, B. (2011). *Psychologia społeczna* [*Social Psychology*]. Wydawnictwo Naukowe Scholar.

Xie, X., Chen, W., Zhu, X., & He, D. (2019). Parents' phubbing increases Adolescents' Mobile phone addiction: Roles of parent-child attachment, deviant peers, and gender. *Children and Youth Services Review*, *105*, Article 104426. https://psycnet.apa.org/doi/10.1016/j.childyouth.2019.104426

Xie, X., & Xie, J. (2020). Parental phubbing accelerates depression in late childhood and adolescence: A two-path model. *Journal of Adolescence*, *78*, 43–52. https://doi.org/10.1016/j.adolescence.2019.12.004

Appendix 1
Questions exploring parental phubbing

1. How often did your parents watch television?
2. How often did your parents prefer to watch TV rather than give you their attention (e.g. to do homework together)?

3. How often did your parents turn on or make the radio louder in the car or at home when there was no conversation going on?
4. How often did you eat your meals with the TV on?
5. How often have your parents ignored your needs by focusing on TV, radio, newspaper etc.?
6. Have there been times when your parents refused to participate in fun time in order to watch TV/read the newspaper instead?
7. Did your parents draw attention to your excessive media use when they were focusing on it themselves?