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ORIGINAL ARTICLE

WILEY Perspectives in PSYCHIATRIC CARE

The effects of technology use on working young loneliness and social relationships

Emriye Hilal Yayan PhD | Yeliz Suna Dağ | Mehmet Emin Düken (iD)

Department of Child Health Nursing, Nursing Faculty, Inönü University, Malatya, Turkey

Correspondence
Mehmet Emin Düken, Department of Child Health Nursing, Nursing Faculty, Inönü University, 44280 Malatya Turkey.
Email: eminduken@gmail.com

Abstract

Purpose: This study was conducted to investigate the effects of technology use on working young loneliness and social relationships.

Designs and Methods: The relational descriptive study was conducted with 1,312 young using a young information form, the Internet Addiction Scale, the Peer Relationship Scale, and the Smart Phone Addiction Scale.

Conclusion: It was determined that young, who are exposed to violence, smoke, and work as unskilled labor force have a high dependence on the Internet and smartphones. Young with the Internet and smartphone addiction were found to have high levels of loneliness and poor social relations.

Practice Implications: It has been determined that young who are weak in the social aspect fill these deficiencies by using the Internet and telephone.

KEYWORDS
Internet addiction, loneliness, peer relationships, smartphone addiction, young

1 | INTRODUCTION

Child labor is defined as the involvement of children under the age of 18 in work life to survive or to contribute to family budgets.[1] According to the records of the International Labor Organization (ILO), 306 million of the 1.586 billion children in the world (19.3%) are in the employment sector, and 250 million (about 70%) are child workers.[2]

Child labor is caused by many factors. Poverty is the most fundamental cause[3] and this problem leads to unequal income distribution, migration, and socioeconomic changes.[4–6] It also adversely affects children's success in school.[7,8] Depriving children of education condemns them to a future of low income work as unskilled labor like their family members.[9] According to a study by the ILO, children work for economic reasons, such as breaking the cycle of poverty, meeting their basic needs, and reducing the burden on and ensuring the survival of their families.[2]

Child labor negatively affects children's health.[10] They are exposed to hazards caused by mental, physical, chemical, and environmental factors, and they have inadequate and unbalanced nutrition due to long work hours as well as harsh work conditions.[11] They are subjected to abuse and neglect. In addition, children who work cannot complete their physical, cognitive, social, and emotional development,[12] cannot complete their education,[13] and cannot develop their skills. They

become ill-tempered, withdrawn, and insecure individuals who cannot fit into their environment.[9]

Children working in unfavorable environments and at low rates of pay can acquire bad habits in the work environment such as smoking, alcohol use, drug use, and other addictive behaviors.[3] Since children are deprived of social circles and peers and spend most of their time alone with their employers in the workplace, they spend a lot of time on the Internet or the smartphone like other peers.

Internet addiction has emerged as a rapidly growing problem, especially among adolescents.[14,15] During adolescence, children may experience psychological and sociological fears such as social breakdowns, problems with family and peers, fear of the future, and fear of social rejection.[16] Children feel the need for an environment where they can get away from the problems they encounter during this period. For this reason, adolescent children look for an atmosphere where they can be understood, accepted, and happy.[17] When adolescents get acquainted with the Internet and receive the support they seek, they get more dependent on it and spend more time on it.[18]

There are many studies of children's Internet addiction in the literature. A study conducted in China states that adolescents who have problems with unhealthy interpersonal and school relationships have higher rates of Internet addiction. Similarly, a study conducted in Turkey reported that 31% of the Turkish students connect at least once

a day to the Internet, and that students in vocational schools or with poor academic performance had longer durations of Internet use.[19,20] Many studies have found that Internet use negatively affects adolescents' psychosocial development and can lead to mental health problems such as depression, loneliness, low self-esteem, and anxiety.[20,21] Seyrek et al.[22] reported that individuals with low self-esteem, low motivation, fear of rejection, and depression tend toward excessive Internet use.[22] Similarly, according to a study in Turkey conducted with university students, loneliness is associated with life satisfaction and self-esteem and increases Internet addiction.[23] Another study found that adolescents' social support was negatively correlated to depression and positively correlated to Internet addiction.[24]

1.1 | Aim

Working young experience problems such as not having enough time to spend with their peers and being unable to continue their education. At the same time, young must communicate and interact with adults in their work environments, which can lead to them not being able to adapt to their environments. This may lead them to seek interaction, social support, and virtual happiness by using technology. This study was conducted to investigate the effects of technology use of working young loneliness and social relationships.

Research questions:

1. What are the tendencies of working young to develop the Internet and smartphone addiction?

2. Does the tendency toward addiction to the Internet and smartphones differ due to loneliness and peer relationships?

1.2 | Method

This is a relational descriptive study.

1.3 | Sample

The study population consists of young who live and work in the city of Diyarbakır. Snowball sampling was used for the study. Snowball sampling is a method used in situations where the boundaries of the universe and members of the universe cannot be precisely defined (eg, illegal refugees, rape victims, drug addicts, children, and illegal workers). In the snowball sampling method, the individuals who have the desired characteristics are determined, first contact is established and the other individuals are reached with their help. In this way, the size of the sample expands like a snowball rolling downhill. By repeating this process many times, the study is completed with an adequate sample.

Between March and August 2017, young working in the streets, the industrial zone, and small businesses were identified, and the study was conducted with 1,312 young who agreed to participate.

1.4 | Data collection tools

A Young Information Questionnaire, the Internet Addiction Test, the Peer Relationship Scale, the UCLA Loneliness Scale, and the Smartphone Addiction Scale were used in this study.

1.4.1 | The young information questionnaire

This questionnaire was prepared by the researchers. It consists of 15 questions about age, gender, education, income status, and so forth to determine the sociodemographic characteristics of the young. It includes multiple choice and open-ended questions and can be completed in 10 to 15 min.

1.4.2 | The internet addiction test

This scale was developed by Young and transformed into the short form by Pawlikowski et al.[25] It has 12 items and is a 5-point Likert scale (1: never, 5: very often). High scores on the scale indicate high levels of Internet addiction.[26]

1.4.3 | The smartphone addiction scale

This scale was developed by Kwon et al. It is a 6-point Likert scale (1: I absolutely do not agree, 6: I strongly agree) with 33 items, and higher scores indicate higher risk of addiction.[27]

1.4.4 | The peer relationship scale

This scale was developed by Kaner (2000)[28] to evaluate peer relationships. It has 18 items in four subdimensions (commitment, trust and identification, self-disclosure, and loyalty). It is a 5-point Likert scale (1: never, 5: always). High scores indicate positive relationships with peers, and low scores indicate negative relationships.[29]

1.4.5 | The UCLA loneliness scale

This scale was developed to measure levels of loneliness. It is a 4-point Likert scale consisting of 20 items of which 10 are reverse coded. High scores indicate more loneliness.[29]

1.4.6 | Ethical considerations

Ethical approval was obtained from Inönü University's Health Sciences Non-Interventional Clinical Research Ethics Committee. Permission was obtained from the governor of the province where the study was carried out. The young and parents/guardians who participated in the study were informed about the study. It was explained that the obtained data would only be used for scientific purposes, and that they could leave the study at any stage. Approval was obtained from the living and/or present parents of the young who were included in the study. After approval was obtained from the parents/guardians, approvals were obtained from the young.

1.5 | Data analysis

SPSS 22.0 software was used to analyze the data. The research data were examined for normal distribution, and the normally distributed data were analyzed using Student's *t*-test, bivariate correlation, and multivariate regression. The Kruskal-Wallis and Mann–Whitney U tests were used to analyze the data with non-normal distributions.

2 | FINDINGS

It was determined that 73.6% of the young were male, and 56.8% were attending middle school. Their mean age was 13.81 ± 2.22. Of the young, 77.1% reported that they had bad relationships with their employers, 86.4% had been exposed to violence. Of them, 73.8% smoked cigarettes, and 38.4% spent time stealing with their friends.

Of the young, 99.3% stated that they go to the Internet cafes, and 97.9% use the Internet regularly: 4.1% for educational purposes, 3.2% for information, 91.5% for entertainment, 68.2% for chatting, and 74.1% for browsing sites.

The Internet addiction, loneliness, smartphone addiction, and peer relationship scales were compared with the young's demographic characteristics. There was a significant difference between loneliness and smartphone addiction mean scores by gender.

The Internet and smartphone addiction, loneliness, and peer relationship scores were compared with the young's Internet use patterns. The young who use the Internet for educational or information purposes had significantly lower Internet addiction, loneliness, and smartphone addiction scores, and their peer relationships scores were significantly higher. There was a significant difference between the loneliness and smartphone addiction scores of the young who use them for entertainment purposes. The Internet addiction and loneliness scores of the young who use the Internet for chatting were significantly higher and their peer relationship mean scores were significantly lower. The young who use the Internet for browsing had significantly lower peer relationship scores (Table 1).

The young who had been exposed to violence and smoked had higher Internet addiction, loneliness, and smartphone addiction scores and lower peer relationship scores (Table 1).

In the analysis according to the relation between the young and their employers it was seen that young, who had a bad relationship with their employers, had the highest Internet addiction, loneliness, and smartphone addiction mean scores and the lowest peer relationship mean scores and there was a significant difference between the groups. The same situation is also seen in the relationship with their friends and it is found that there is a significant difference between the groups. The analysis according to the time the young spent with their peers showed that there is a significant difference between Internet addiction, loneliness, smartphone addiction, and peer relationships (Table 1).

The relationship between the young's monthly income and the number of cigarettes they smoked daily, Internet addiction, smartphone addiction, loneliness, and peer relationships was examined. There were strong positive correlations between cigarettes per day and Internet addiction and loneliness, a weak positive correlation to smartphone addiction and a strong negative relation to peer relationships. It was determined that there were weak positive correlations between the young's monthly income and the Internet and smartphone addiction. There were strong positive correlations between Internet addiction, loneliness, and smartphone addiction and negative correlations between peer relationships and Internet addiction, loneliness, and smartphone addiction (Table 2).

Multiple linear regression analysis found that smart phone addiction, loneliness, and peer relationships have a high and meaningful relation with Internet addiction ($R = 0.79$, $R^2 = 0.62$, $P < 0.01$). Smart phone addiction, loneliness, and peer relationships explain 62% of the variance of Internet addiction. The standardized (β) coefficient and t-value indicate that smart phone addiction, loneliness, and peer relationships are important factors in Internet addiction (Table 3).

3 | DISCUSSION

Today, with advances in technology, the Internet and smartphone addiction has become a major problem, especially for adolescents and young adults.[14,15,30] Working girls, included in our study, were found to have higher loneliness and smartphone addiction scores. This may be due to the fact that girls need more emotional and social support than boys.[31] The literature has shown that girls have higher addiction[32,33] and boys have higher loneliness levels.[30,34]

Children feel comfortable in a family environment where they are loved, are able to create reliable relationships, and where their needs are met.[35] In the related field text, it is stated that children who are not supported by their parents, friends, teachers, and their environment and children that have bad relationships, exhibit higher addiction behaviors[36–38] and experience more loneliness.[39] In a similar way, our study showed that young, whose mother and/or father died, exhibit addictive behavior, experience loneliness, and have weak peer relationships.

Our study found that the Internet and smartphone use purposes affect the dependency behaviors of working young. Yayan et al.[40] pointed out that the addiction levels of adolescents who spend time on social media and game sites were higher.[40] Canbaz et al.[41] found that adolescents use the Internet most for information and chatting, and that adolescents with a tendency to play games online are more likely to exhibit Internet addiction behaviors.[41] Interactions on social media and gaming sites may increase the use of these websites over time.[42,43] Studies have also associated children's online activities with loneliness[43] and poor interpersonal relationships.[44] However, these studies do not indicate whether loneliness is a result or a cause. In our study, the young are the only young in their work places, and they mainly interact with adults. For this reason, loneliness and/or lack of adequate peer relationships may force young to use the Internet and smartphones more frequently. In this case, loneliness and inadequate peer relationships can be considered causes and not results.

School life is an important time when children and adolescents can interact in social circles.[30] Children who have problems with their social environment can be affected psychologically and behaviorally.[45] Current studies have shown that children and adolescents exhibit Internet and smartphone addiction behaviors.[14,15,19,20] Laursen and Hartl[46] found that adolescents prefer loneliness due to physical or hormonal transitions and that their peer relationships are poor.[46]

The psychosocial development processes of children who participate in work life during puberty, when physical, mental, psychological, and social changes are taking place rapidly, may be adversely affected,

TABLE 1 Comparison of the demographic characteristics of the working children and their parents with Internet addiction, smartphone addiction, loneliness, and Peer Relationships Scale scores

		N	Internet	Loneliness	Smartphone	Peer relations
Gender[a]	Girl	346	52.02 ± 7.85	64.40 ± 8.67	156.30 ± 7.54	44.19 ± 10.28
	Boy	966	52.37 ± 8.20	62.11 ± 8.89	154.95 ± 11.91	45.41 ± 11.31
	t-Value		−0.633	4.129	1.958	−1.759
	P-value		0.527	**0.000**	**0.050**	0.079
Internet usage for educational purposes[b]	Yes	54	30.92 ± 7.62	48.31 ± 8.66	147.42 ± 25.69	61.79 ± 7.81
	No	1258	53.20 ± 6.76	63.33 ± 8.36	155.65 ± 9.71	44.37 ± 10.60
	t-Value		−23.570	−12.901	−5.464	11.927
	P-value		**0.000**	**0.000**	**0.000**	**0.000**
Internet usage for entertainment purposes[b]	Yes	1200	52.34 ± 7.84	62.49 ± 8.77	155.63 ± 10.24	45.09 ± 10.60
	No	112	51.65 ± 10.57	65.19 ± 9.74	151.89 ± 16.43	45.05 ± 15.17
	t-Value		0.869	−3.090	3.470	0.037
	P-value		0.385	**−0.002**	**0.001**	0.970
Internet usage for chatting purposes[a]	Yes	895	52.64 ± 7.58	63.53 ± 8.65	155.31 ± 10.72	44.27 ± 10.95
	No	417	51.53 ± 9.10	60.98 ± 9.14	155.30 ± 11.42	46.85 ± 11.10
	t-Value		2.302	4.873	0.023	−3.957
	P-value		**0.022**	**0.000**	0.981	**0.000**
Internet usage for browsing purposes[a]	Yes	340	52.75 ± 8.41	63.36 ± 9.09	155.34 ± 11.84	43.84 ± 12.18
	No	972	52.12 ± 8.00	62.49 ± 8.81	155.30 ± 10.62	45.52 ± 10.61
	t-Value		1.233	1.544	0.068	−2.418
	P-value		0.218	0.123	0.946	**0.016**
Has the child been exposed to violence?[b]	Yes	1134	54.46 ± 4.95	64.36 ± 7.77	157.21 ± 6.53	42.96 ± 9.64
	No	178	38.45 ± 10.38	52.24 ± 8.39	143.18 ± 21.05	58.63 ± 9.90
	t-Value		33.180	19.117	17.682	−20.085
	P-value		**0.000**	**0.000**	**0.000**	**0.000**
Does the child smoke?[b]	Yes	968	54.79 ± 4.66	65.54 ± 6.86	157.56 ± 4.77	9.21 ± 29
	No	179	47.44 ± 8.23	59.60 ± 8.06	148.74 ± 12.26	11.95 ± 89
	t-Value		16.813	10.333	16.594	−10.955
	P-value		**0.000**	**0.000**	**0.000**	**0.000**
Relationship of the child to his employer[c]	Good	100	35.42 ± 7.69	49.57 ± 5.73	139.08 ± 22.69	59.39 ± 10.96
	Medium	201	47.83 ± 8.50	55.85 ± 9.47	152.25 ± 12.16	52.97 ± 8.51
	Bad	1011	54.84 ± 5.16	65.38 ± 6.92	157.52 ± 6.55	42.10 ± 9.55
	t-Value		540.441	318.958	175.153	231.390
	P-value		**0.000**	**0.000**	**0.000**	**0.000**
Relationship of the child to his peers	Good	484	38.00 ± 9.33	53.13 ± 9.33	144.95 ± 21.87	58.01 ± 8.88
	Medium	336	45.90 ± 7.81	58.43 ± 7.81	147.56 ± 14.91	53.25 ± 8.35
	Bad	492	53.92 ± 6.22	65.91 ± 7.59	157.66 ± 8.73	38.52 ± 14.05
	t-Value		142.507	82.879	22.504	117.527
	P-value		**0.000**	**0.000**	**0.000**	**0.000**

[a]Student's *t*-test.
[b]Mann–Whitney U test.
[c]Kruskal–Wallis test.

which can lead to negative outcomes in their future.[35,47] Pinzon-Rondon et al.[48] found that children who worked on the streets were exploited by adults, sexually harassed, and that they had fears about the streets.[48] Other studies have also found that children who were too young to protect themselves from danger were competing with adults, verbally and sexually harassed, beaten, and dismissed.[49–51]

Some studies have shown that working children are exposed to many types of violence,[4] have committed various crimes, and are beginning to use addictive substances.[35] Our study supports the literature because it found that young who have bad relationships with their employers and friends and are subjected to violence engage in addictive behaviors.

TABLE 2 Relation between the children's monthly incomes and daily cigarette use, internet addiction, smartphone addiction, loneliness, and peer relationships

		Smartphone	Peer relations	Loneliness	Number of cigarettes the child smokes daily	Monthly income of the child
Internet addiction	r	0.565[b]	−0.711[b]	0.704[b]	0.416[b]	0.165[b]
	p	0.000	0.000	0.000	0.000	0.000
Smartphone addiction	r	1	−0.478[b]	0.393[b]	0.275[b]	0.057[a]
	p		0.000	0.000	0.000	0.040
Peer relationships	r		1	−0.761[b]	−0.440[b]	−0.045
	p			0.000	0.000	0.102
Loneliness	r			1	0.514[b]	−0.010
	p				0.000	0.708

[a]Correlation is significant at the 0.05 level (two-tailed).
[b]Correlation is significant at the 0.01 level (two-tailed).

TABLE 3 Examination of Internet addiction, smartphone addiction, loneliness, and peer relationships with multiple regression model

	B	*SE*	*β*	*t*	*P*	*R*	*R²*
Constant	-	3.276	-	-	-		
Smartphone addiction	0.205	0.014	0.277	14.404	0.000	0.792	0.627
Loneliness	0.335	0.024	0.367	14.086	0.000		
Peer relationships	−0.219	0.020	−0.299	−10.960	0.000		

SE = 4,957, *F* = 734,551, *P* < 0.001.

The *DSM-5* includes both substance abuse and non-substance-related behavioral addictions. Repetitive behaviors are at the core of behavioral addictions. Behaviors that are pleasing can become constant and thus habitual.[52] Studies have shown that Internet addiction has features that are similar to substance, alcohol, and gambling addictions.[53,54] Noyan et al. stated that habitual and repetitive behaviors may cause distancing from the real world,[52] and Leigh-Hunt et al.[55] reported that lonely individuals exhibit harmful behaviors such as smoking, excessive alcohol consumption, and overeating as relief mechanisms.[55] In our study, as the amount of cigarette consumption increased, the Internet and smartphone addiction also increased. For this reason, it can be said that, since cigarette use is an addictive behavior, it increases the potential of young to exhibit other addictive behaviors. Our study found that as the young's loneliness levels increased, their cigarette use also increased, while their peer relationships worsened. Young who exhibit addictive behavior exhibit other similar addictive behaviors at the same time. As the incomes of the young increased, their Internet and smartphone addiction levels also increased. There are no similar findings in the literature, but this can be interpreted to mean that young who are addicted use their incomes to engage in addictive behavior.

Internet use can have negative effects on health, academic success, time management, and interpersonal relationships.[56] Many studies have shown a negative correlation between Internet addiction and social relationships.[44,57–59] Other studies have indicated that excessive Internet use increases loneliness and social isolation.[60,61] A meta-analytic study of loneliness found that social support is an important predictor of loneliness in adolescence.[62] More specifically, social support from parents and friends,[30] and high peer acceptance[45] have been reported to be negatively correlated with loneliness. Seo et al.[63] reported that children with problematic social relationships exhibited Internet addiction behaviors.[63]

4 | CONCLUSION

Young with low incomes who have been exposed to violence and smoke cigarettes engage in highly addictive behavior on the Internet and smartphones. Young with the Internet and smartphone addiction were found to have high levels of loneliness and poor social relationships. Further qualitative and quantitative studies of young's addiction, loneliness, and peer relationships should be carried out.

5 | RELEVANCE FOR CLINICAL PRACTICE

Since young people have not yet reached psychological maturity, they present a potential risk for addiction. It should be taken into account that the Internet and smartphones may have an adverse impact on the mental health or peer relationship of young because they occupy a considerable amount of time in their lives. Health professionals should plan interventions by considering that working young people are a disadvantaged group and may be at risk for technological addiction, and that this may also have social effects. The effects on the socialization of working young who are psychologically dependent on technology should also be considered.

ORCID

Mehmet Emin Düken 🔵 http://orcid.org/0000-0002-1902-9669

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