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Relationship between Cellular Devices Uses and Demographic Information among Employers in Universities at Al-Muthanna Governorate

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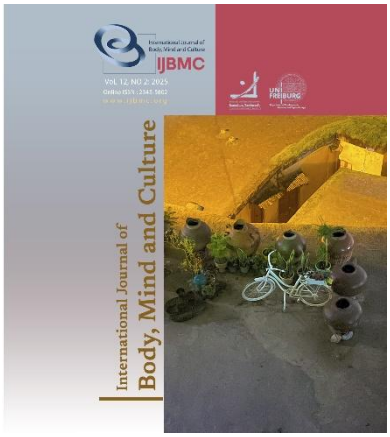

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ABSTRACT

Objective: Mobile phones and electronic devices are indispensable in daily life due to several advantages and disadvantages, such as the ability to control the time factor, handicapping repercussions on one's body and psychological processes due to overuse. This study was focused on investigating teachers' level of dependence on their mobile phones at Al-Muthanna University and the Technical Institute using the CPDS Cell Phone Dependence Scale.

Methods and Materials: In this descriptive-analytical study, conducted from 9 September 2023 to 8 January 2024, a random sample of 110 teachers was selected: 75 from Al-Muthanna University and 35 from the Technical Institute. The level of mobile phone dependence was assessed using the CPDS, and the scores on this assessment similarly rated the level of dependency as mild, moderate, or severe. Descriptive statistics were used to outline the general characteristics of the sample concerning their demographic profile and the extent of dependency.

Findings: On average, 70.7% of the teachers used mobile phones, while 17.3% of university teachers and 37.1% of technical institute teachers had a poor pattern of phone usage. Few of the participants presented severe dependence. No demographic variable significantly correlated with mobile phone dependence.

Conclusion: The results show that teachers use mobile phones moderately, but prolonged and excessive use develops a potential threat of psychological and physical harm. The study emphasizes the role of self-control and awareness regarding threats to the use of mobile phones. Interventions that reduce educators' reliance on mobile phones would be worth further investigation.

Keywords: Mobile Phone Dependence, University Teachers, Psychological Impact, Smartphone Addiction.

Introduction

In the last couple of decades, the use of mobile phones has grown and increasing a lot. Mobile phones began to appear in the 1980s as a simple means of communication and have become the multiproducts that are now inseparable parts of life. However, mobile phones in today's life serve as communication devices and education, entertainment, health monitoring and social networking tools (Mei et al., 2018; Ng'andu, 2024). This trend has been further sped along by smartphone development, where users can control almost the entirety of their lives with a single handset (Jameel et al., 2024; Kaya et al., 2021). Advancement of technology has made the mobile phones more accessible and indispensable to one's life; making phones an important aspect of working and personal life (Seyed Alitabar & Zadhasn, 2023).

In line with the Pew Research Centre (2022), mobile phones' dependency has become the primary research issue in analysing their effects on health, social relations, and professional output (Ng'andu, 2024). For instance, mobile phones have been used in school more and more in an effort to develop their own communicative, relational and pedagogical practices by teachers. But the ease this brings promise makes mobile phones to be worthwhile risk despite the possible development of dependence and addictive behaviour (Demirci et al., 2015; Hsu et al., 2024).

Mobile phone dependence, also known as "smartphone addiction," is an excessive use of mobile devices to the extent that it interferes with daily life (Lenhart et al., 2011; Mei et al., 2018). Like other behavioral addictions (like internet addiction and gaming addiction), people who have this addiction show uncontrollable use of the substance or the activity that harms them physically, mentally or socially (Ali, 2023; Seyed Alitabar, 2023).

Additionally, mobile phones ensure that they are always connected to social media platforms, creating feelings of loneliness or inadequacy among younger users (Jameel et al., 2024). Mobile phones are used by teachers to communicate with students, parents and colleagues, and access educational resources, as well as for professional responsibilities (Arif et al., 2023; Thomas et al., 2013). The usage of this kind of mobile phones has quickened in activities, for instance, in Al-Muthanna Governorate, Iraq, as teachers more regularly based on mobile phones to direct their expert liabilities (Kaya et al., 2021). Such contexts though involve high pressures of modern education and limited access to traditional resources, and thus make mobile phones inescapable tools (Hsu et al., 2024) the challenges of mobile phone dependence are particularly marked in these contexts. This contribution deals with the prevalence of mobile phone dependence in university and technical institute teachers in Al-Muthanna Governorate using the Cell Phone Dependence Scale (CPDS to measure the degree of dependence and its impact on the teachers' psychological and social well being (Arif et al., 2023; Bansal, 2018).

This study establishes a theoretical framework based on the idea of behavioral addition that asserts that, like any other addiction, some behaviors, for example, excessive mobile phone usage, can become addictive because these behaviors offer immediate rewards that maintain the current use (Choliz, 2012; Demirci et al., 2015; Seyed Alitabar & Zadhasn, 2023). Relatively few studies have focused on the problem specifically among particular professional groups, such as teachers (Lenhart et al., 2011; Mei et al., 2018). Secondly, many of the studies conducted so far have been in the context of high income countries, with a lack of understanding on how mobile phone dependence affects individuals in low income and middle income countries that are experiencing rapid technological access (Parasuraman & Jiang, 2012; Pradeep et al., 2022). To address these gaps and in spite of research that has focused on teachers in other provinces of Iraq, this study focuses on teachers in Al-Muthanna Governorate. However, in recent years, there have been impressive technological developments in this region, but it has specific Education and Infrastructure challenges (Ali, 2023).

For a number of reasons, mobile phone dependence among teachers should be addressed. Teacher first are role models for the students and how they are able to use technology responsibly in their teaching significantly influences how the next generation will form good habits. At last, limiting teacher's dependence on mobile phone improves their productivity and job satisfaction that is consistent with a more successful and favorable educational environment (Ali, 2023; Arif et al., 2023; Bansal, 2018; Pradeep et al., 2022; Puri, 2018; Thomas et al., 2013).

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Methods and Materials

Study Design and Participants

The method of the study was descriptive-analytical through the crosslink sectional through the study of the dependence on the mobile phone among Al-Muthanna University teachers and the technical institute technical institute teachers.

All teachers practicing on Al-Muthanna University and Technical Institute estimated size of about 500 teachers were the study population. Taking into account a 95% confidence level and a 5% margin of error the sample size was found to be 110 (n=110) participants. Al-Muthanna University and Technical Institute were used for this sample, dividing into (n=75) and (n= 35).

The data collection took place from September 9, 2023 until January 8, 2024. Trained research assistants gave out person handed out and collected, using the CPDS and Demographic questionnaires. Follow up notices were given after 1 week to ensure high response rate. The survey response rate was 90%.

Instruments

In this, data was collected using the Cell Phone Dependence Scale (CPDS). The CPDS consists of 16 items measuring three levels of dependence: mild, moderate, and severe. Responses were given on a 4 point Likert scale (Never, Rarely, Frequently, Always) and each response was given a score from 0 to 3. Previous studies examining populations similar to the current one have validated the CPDS to have high construct and content validity. Further, a pilot study with ten teachers was run to verify the cultural relevance and understanding of the questionnaire (Ali, 2023; Choliz, 2012).

Data Analysis

Data were analyzed using SPSS version 26. Descriptive statistics (frequencies, percentages, means, and standard deviations) were used to summarize the demographic data and levels of mobile phone dependence. Pearson's correlation and multiple regression analyses were conducted, and a p-value of less than 0.05 was considered statistically significant.

Confounding variables such as age, gender, and educational level were controlled using multivariate regression analysis to ensure that these factors did not influence the effects of mobile phone dependence.

Findings and Results

One hundred ten participants were included in the study, comprising 75 teachers from Al-Muthanna University and 35 from the Technical Institute. The mean age of the participants was 42.5 years (SD = 9.8), ranging from 25 to 60 years. Among the participants, 65% were male, and 35% were female. Most participants were married (72%), with 25% being single and 3% divorced or widowed. Table 1 presents the sample's demographic characteristics, including education level, marital status, and years of teaching experience. As shown, 40% of participants held postgraduate degrees, while 60% had undergraduate qualifications.

Table 1

Demographic Characteristics of the Sample

Variable	Frequency (n)	Percentage (%)
Gender		
Male	71	65
Female	39	35
Marital Status		
Married	79	72
Single	27	25
Divorced/Widowed	4	3
Education Level		
Postgraduate Degree	44	40
Undergraduate Degree	66	60
Age Group		
25-35	22	20
36-45	44	40
46-60	44	40
Years of Experience		

0-5 years	20	18.2
6-15 years	42	38.2
16+ years	48	43.6

The analysis revealed a significant positive correlation between age and mobile phone dependence ($r = 0.32$, $p < 0.01$), indicating that older teachers tended to have higher levels of mobile phone dependence. In contrast, gender and marital status did not significantly correlate with mobile phone dependence ($p > 0.05$). Additionally, years of teaching experience positively correlated with mobile phone dependence ($r = 0.28$, $p < 0.05$), suggesting that teachers with more experience tended to report higher dependence.

A multiple regression analysis determined the predictive power of demographic variables (age, gender, marital status, education level, and years of experience) on mobile phone dependence.

Table 2

Multiple Regression Coefficients for Predictors of Mobile Phone Dependence

Predictor	Unstandardized Coefficients (B)	Standardized Coefficients (β)	p-value
Age	0.12	0.28	0.001
Gender (Male = 1, Female = 0)	-0.21	-0.09	0.27
Marital Status (Married = 1, Single/Divorced = 0)	0.18	0.07	0.33
Education Level (Postgraduate = 1, Undergraduate = 0)	-0.10	-0.05	0.45
Years of Experience	0.09	0.22	0.02
Model R^2		0.23	

The overall model was significant ($F(5, 104) = 4.37$, $p < 0.01$), with age ($\beta = 0.28$, $p < 0.01$) and years of experience ($\beta = 0.22$, $p < 0.05$) being significant predictors of mobile phone dependence. Gender, marital status, and education level were insignificant predictors ($p > 0.05$). The model explained 23% of the variance in mobile phone dependence ($R^2 = 0.23$), indicating that other unmeasured factors may contribute to dependence.

Given the significant relationship between age and mobile phone dependence, a post-hoc Tukey test was conducted to explore differences in mobile phone dependence across age groups. Teachers in the 45-55 age group demonstrated significantly higher dependence than those in the 25-35 age group ($p < 0.01$). No significant differences were found between other age groups. While the results showed significant relationships between mobile phone dependence and some demographic variables (age, years of experience), there were no significant associations found between mobile phone dependence and gender ($p = 0.27$), marital status ($p = 0.33$), or education level ($p = 0.45$). These null results suggest that mobile phone dependence may not vary significantly across these demographic factors. The correlation between age and mobile phone dependence yielded a medium effect size ($r = 0.32$), while the effect size for years of experience was small to medium ($r = 0.28$).

Discussion and Conclusion

This research aimed to evaluate the extent of mobile phone dependence among educators at universities and technical institutes in Al-Muthanna Governorate. Some studies have reported conflicting outcomes, showing that younger demographics exhibit higher levels of phone addiction, particularly about social media use (Mei et al., 2018; Nikhita et al., 2015). These inconsistencies reflect the multifaceted nature of mobile phone dependence and suggest that age groups use phones differently, depending on their needs. The current results suggest a change from the earlier findings when women were reported to be more addicted to their phones than men due to more usage of social media and messaging apps (Ali, 2023; Choliz, 2012; Nikhita et al., 2015). These results hold significant meaning for teachers and policymakers. With up to 15% of teachers suffering from extreme mobile phone use, institutions in the learning cycle should adopt measures that reduce such dependency. Such strategies could include policies limiting mobile phone usage during active hours and focusing on helping teachers who use their phones often.

Future studies could address this limitation by employing objective tracking tools to measure phone

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usage more accurately. Additionally, the cross-sectional nature of this research limits causal inferences. While correlations between age, experience, and phone dependence were identified, it is unclear whether these variables drive dependence or whether individuals predisposed to higher dependence remain in their careers longer.

The results show that teachers use mobile phones at a moderate level; however, excessive and prolonged use may lead to potential risks for both mental and physical health. The research emphasizes the need for self-discipline and awareness of these dangers. Future studies could focus on strategies to help educators reduce their reliance on mobile devices.

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Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants. Ethical considerations in this study were that participation was entirely optional. This study was approved by the Ethics Committee of Al-Muthanna University (Approval No: 2023/01/15). Additionally, the cross-sectional design limits the ability to establish causal relationships. Although a random sampling method was used, the sample may not fully represent the diversity of teachers, mainly part-time or adjunct faculty, who were underrepresented. There were minimal missing data (less than 5% of responses), and missing values were handled using mean imputation to maintain sample size. Sensitivity analysis was performed, and excluding participants with missing data did not significantly alter the results, suggesting that missing data did not bias the findings.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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Authors' Contributions

All authors equally contributed to this study.

References

Ali, M. (2023). The effect of dependence on cell phones on the mental health of prospective teachers. *Qalamuna Jurnal Pendidikan Social Dan Agama*, *15*(2), 1179-1190. https://doi.org/10.37680/qalamuna.v15i2.3985

Arif, M. Z., Nurdin, D., & Sururi, S. (2023). Mapping the use of digital learning tools and methods for increasing teachersâ digital competence. *Jurnal Pendidikan Glasser*, *7*(2), 226-240. https://doi.org/10.32529/glasser.v7i2.2528

Bansal, P. (2018). Mobile phone usage pttern and addiction level among student teachers. *Approved Journals*, *10*, 343-350. https://www.researchgate.net/publication/337439238

Choliz, M. (2012). mobile-phone addiction in adolescence: the test of mobile phone dependence (TMD). *Department of Basic Psychology University of Valencia Avda Blasco Ibáñez, Spain*, *2*(1), 33-44. https://psychologyroots.com/test-of-mobile-phone-dependence/

Demirci, K., Akgönül, M., & Akpinar, A. (2015). Relationship of smartphone use severity with sleep quality, depression, and anxiety in university students. *Journal of Behavioral Addictions*, *4*(2), 85-92. https://doi.org/10.1556/2006.4.2015.010

Hsu, C. Y., Ajaj, Y., Ghadir, G. K., Al-Tmimi, H. M., Alani, Z. K., Almulla, A. A., & Habibzadeh, S. (2024). Rechargeable Batteries for Energy Storage: A review. *e-Prime-Advances in Electrical Engineering, Electronics and Energy*, 100510. https://doi.org/10.1016/j.prime.2024.100510

Jameel, M. K., Mustafa, M. A., Ahmed, H. S., jassim Mohammed, A., Ghazy, H., Shakir, M. N., & Kianfar, E. (2024). Biogas: Production, properties, applications, economic and challenges: A review. *Results in Chemistry*, 101549. https://doi.org/10.1016/j.rechem.2024.101549

Kaya, F., Bostanci Daştan, N., & Durar, E. (2021). Smartphone usage, sleep quality and depression in university students. *The International Journal of Social Psychiatry*, *67*(5), 407-414. https://doi.org/10.1177/0020764020960207

Lenhart, A., Madden, M., Smith, A., Purcell, K., Zickuhr, K., & Rainie, L. (2011). *Teens, Kindness and Cruelty on Social Network Sites: How American Teens Navigate the New World of" Digital Citizenship."*. https://eric.ed.gov/?id=ED537516

Mei, S., Chai, J., Wang, S., Ng, C. H., Ungvari, G. S., & Xiang, Y. (2018). Mobile phone dependence, social support and impulsivity in Chinese university students. *International journal of environmental research and public health*, *15*(504), 1-7. https://doi.org/10.3390/ijerph15030504

Ng'andu, C. (2024). *Technology Usage in the Teaching of Vocabulary in English in Selected Primary Schools of Kasama District of Zambia*.

Nikhita, C. S., Jadhav, P. R., & Ajinkya, S. A. (2015). Prevalence of mobile phone dependence in secondary school adolescents. *JOURNAL of CLINICAL and DIAGNOSTIC RESEARCH*, *9*(11), 6-9. https://doi.org/10.7860/JCDR/2015/14396.6803

Parasuraman, R., & Jiang, Y. (2012). Individual differences in cognition, affect, and performance: behavioral, neuroimaging, and molecular genetic approaches. *NeuroImage*, *59*(1), 70-82. https://doi.org/10.1016/j.neuroimage.2011.04.040

Pradeep, B., Shenoy, A. B., Shahane, S., Srividya, R., Arelingaiah, M., D'Souza, R., Garady, L., Jyoti, M., Rache, S., Dixit, A., Yekkar, G. S., Lingaiah, P., Rajneesh, S., & Gururaj, G. (2022). Age, gender, peers, life skills and quality of life influence the risk of cell phone addiction among college teachers in Karnataka, India: a state-level epidemiological analysis. *BMC public health*, *22*(1), 1-10. https://doi.org/10.1186/s12889-022-12575-5

Puri, A. (2018). Mobile phone addiction and cognitive dissonance of prospective teachers. *The Educational Beacon*, *7*(1), 1-7. https://www.theeducationalbeacon.com/images/moble_phone_app.pdf

Seyed Alitabar, S. H. S. (2023). Effects of Work-Life Balance Training Programs on Employee Job Motivation: A Quantitative Analysis. *KMAN Counseling & Psychology Nexus*, *1*(2), 72-78. https://doi.org/10.61838/kman.psynexus.1.2.12

Seyed Alitabar, S. H. S. A., & Zadhasn, Z. (2023). *Digital Mentorship: Mentor-Mentee Relationships in Virtual Spaces*.

Thomas, K. M., O'Bannon, B. W., & Bolton, N. (2013). Cell phones in the classroom: Teachers' perspectives of inclusion, benefits, and barriers. *Computers in the Schools*, *30*(4), 295-308. https://doi.org/10.1080/07380569.2013.844637